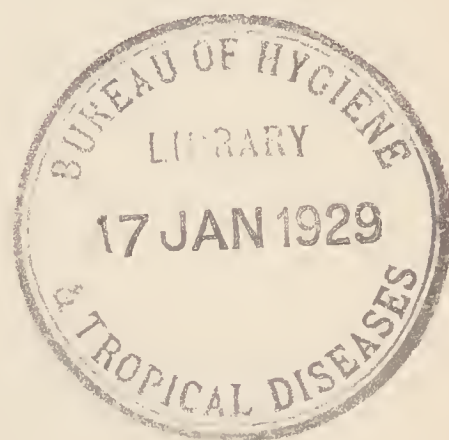
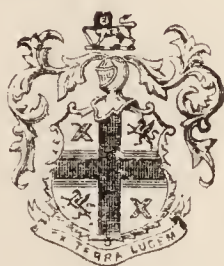


COUNTY BOROUGH OF ST. HELENS.



Annual Report

OF THE

Medical Officer of Health,

FOR THE YEAR 1927.


FRANK HAUXWELL, M.B., Ch.B., D.P.H.

Medical Officer of Health,
and School Medical Officer.

St. Helens :

WOOD, WESTWORTH & CO., LIMITED, PRINTERS AND STATIONERS,
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—
1928.



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TO THE MAYOR, ALDERMEN AND COUNCILLORS
OF THE COUNTY BOROUGH OF ST. HELENS.

Mr. Mayor, Ladies and Gentlemen,

I have the honour to submit the 55th Annual Report on the health of the Borough for the year ended the 31st December, 1927.

Taken as a whole, the year 1927 was a very healthy year and the records show that the steady improvement in the health of the community which has taken place in recent years has been well maintained.

According to the estimate of the Registrar General, the mid-year population of the Borough was 113,100, this figure showing an increase of 3,100 in the estimated population as compared with the previous year. The birth rate, however, is still falling and shows a decline from 23·2 per 1,000 of the population in 1926 to 20·8 per 1,000 in 1927.

The death rate for 1927 was 11·4 per 1,000 of the population and the infant mortality, 88·1 per 1,000 births. The death rate and the infant mortality rate can usually be taken as fair indices of the health of a town, and it is gratifying to note that these rates for 1927 are the lowest yet recorded for St. Helens. It is also encouraging to note that the maternal mortality fell from 4·29 per 1,000 births in 1926 to 3·39 in 1927, and that the tuberculosis death rate fell from 11·1 per 10,000 of the population to 8·4. It is not, however, so encouraging to note that 60 deaths occurred from measles and that all but 3 of these deaths occurred in children under 5 years of age. Home nursing or hospital treatment would materially lessen the number of these deaths, but, though these facilities are available in St. Helens, and are repeatedly offered, parents and doctors alike are slow to take advantage of them.

A comparison of the main vital statistics for St. Helens with those of the other 17 County Boroughs in Lancashire is shown in Table 2.

Particular attention has been paid during the year to the milk supply and to insanitary property.

Following on the passing of the Milk and Dairies Order, 1926—which gives greater powers to deal with conditions under which milk is produced and sold—a survey was commenced during the year of all milk premises in St. Helens, and, resulting from that survey, many improvements have been made which it is hoped will lead to a cleaner and purer milk supply.

During the year more active steps were commenced for dealing with insanitary property. This work, which has been held up for many years owing to the shortage of houses, should, now that building operations are more active, be pushed on as quickly as possible. No big scheme of slum clearance is required, but much could be done by the more ready use of powers for making closing orders.

For details regarding the various conditions dealt with and the numerous activities of the Health Department, I would refer to the appropriate sections of the report. I would particularly draw attention to the need for an additional sanitary inspector so that the statutory obligations placed upon the Council by the Housing (Consolidated) Regulations, 1925, and the Public Health (Smoke Abatement) Act, 1926, etc., can be effectively carried out.

I take this opportunity of thanking members of the Council for the kindness and consideration shown to me in the conduct of my work, and I have to record my hearty appreciation of the loyal and willing co-operation of all members of my Staff.

I have the honour to be,

Your obedient Servant,

FRANK HAUXWELL

October, 1928.

GENERAL STATISTICS.

Area (Acres)	7,284
Population (Census, 1921)	102,640
Estimated Population mid-year 1927	113,100
*Number of structurally separate sets of premises intended or used for habitation	18,516
*Number of families or separate occupiers	19,688
Assessable Value (year ending 31st March, 1928) ...	£429,437
Product of a penny rate	£1,636

* From Census, 1921.

A structurally separate set of premises may be defined as any room, or set of rooms, having separate access either to the street or to a common landing or staircase. The figure furnished includes a small number of premises, which, for one reason or another were vacant on census night.

The Net Cost on the Rates of the various Health Services in St. Helens during the year ending 31st March, 1928, was as follows :—

	Pence per £.
Isolation Hospital	3·52
Tuberculosis	2·55
Maternity and Child Welfare	3·19
Venereal Diseases	·13
Blind Persons	·56
Food and Drugs Acts	·11
Slaughterhouse and Cold Stores	·17
Contagious Diseases of Animals	·01
General Sanitary and Administrative Charges	4·62
Sewage Disposal.....	3·03
Collection and Disposal of Refuse	10·33
Public Conveniences	·25
Total Health Services.....	28·47d.

Total Rate 16/- (192 pence) per £.

STAFF.

Medical Officer of Health, Administrative Tuberculosis Officer,
Medical Superintendent of Corporation Hospitals, and School
Medical Officer :

*Frank Hauxwell, M.B., Ch.B. (Glasgow), D.P.H. (Camb).

Deputy Medical Officer of Health :

*W. Howard Blackburn, M.A., M.B., B.Ch., M.R.C.S.,
L.R.C.P., D.P.H. (Camb). (resigned July, 1927).

*D. E. Morley, M.D., B.S., M.R.C.S., L.R.C.P., D.P.H.
(from October, 1927).

Assistant Medical Officers of Health :

*J. M. Tyrrell, M.B., Ch.B., D.P.H. (Edin.).

*Helen Standring, M.B., Ch.B., D.P.H. (Liverpool),

*T. K. Hughes, M.B., Ch.B., D.P.H. (Liverpool).

Dental Surgeons :

*A. Lee, L.D.S. (resigned August, 1927).

*A. C. Wilson, L.D.S.

*F. A. Hely, L.D.S. (from 1st September, 1927).

*Susan Grandison, L.D.S. (from 1st October, 1927).

Sanitary Inspectors, etc. :

*Alfred Wade, M.R.San.I (1), (5), (8)

Chief Sanitary Inspector.

H. Brown (1), (4), (5), (6).....Sanitary Inspector.

H. Lowe (4), (6).....do.

J. Skeath (4)do

W. J. Milligan (1).....Conversions Inspector.

T. Blashill (1), (5).....Superintendent of Public Abattoir.

Matron of Corporation Hospitals :

*Edith Carder.

*Health Visitors, School Nurses and Tuberculosis Nurses :

Ethel Denman,	(1), (2), (3), (7)	Nora Hogan,	(3), (7)
Florence Faber	(3), (7)	† Selina Hacking	(3), (7)
Mary Riding	(3), (7)	Mary Corrish,	(3), (7)
Winifred Cowan	(2), (3), (7)	Mary Belsher,	(3), (7)
Florence Wilkinson,	(7)	Grace Sumner	(7)
Amy Coates,	(2), (3), (7)	Rosanna J. O'Connor	(3), (7)
Louisa M. Austin,	(3), (7)	Alice Happold,	(3), (7)
Mary Dyer,	(3), (7)	Mary Elliott,	(3), (7)
Emily Corrish,	(2), (3), (7)	Edith Curran	(3), (7)
Daisy C. Cruickshank,	(3), (7)		

*After Care Sister (Orthopaedic Scheme) :

Olive I. Burton,	(7), (9)
------------------	----------

*Dental Nurses :

Ethel M. K. Elliot	(7)	Jessie Staveley	(7)
		Muriel Lamb	

† Resigned during the year.

- (1) Sanitary Inspector's Certificate of the Royal Sanitary Institute.
- (2) Health Visitor's Certificate of the Royal Sanitary Institute.
- (3) Certificate of the Central Midwives Board.
- (4) Sanitary Inspector's Certificate of the Liverpool University.
- (5) Certificate for Meat Inspection of the Royal Sanitary Institute.
- (6) Certificate for Meat Inspection of Liverpool University.
- (7) A trained Nurse.
- (8) Certificate for Sanitary Science of the Royal Sanitary Institute.
- (9) Certificate of Chartered Society of Masseuses, etc.

The following are part time officers :

*J. Unsworth, M.B., B.S., (Lond.).....	Physician to the X-ray Department, Tuberculosis Dispensary.
H. E. Davies, M.A., B.Sc., F.I.C.	Public Analyst.
R. F. Watson, M.R.C.V.S.	Veterinary Inspector.

* Officers towards whose salaries Exchequer contributions are received.

1.—NATURAL AND SOCIAL CONDITIONS OF THE AREA.

PHYSICAL FEATURES AND GENERAL CHARACTER.

St. Helens is situated 10 miles east of Liverpool and 20 miles west of Manchester, and lies on the southern fringe of the

Lancashire coal fields. The area of the borough is 7,284 acres of which approximately one-quarter only is occupied by factories and other industrial works.

Geologically the soil consists of clay overlying coal measures, and owing to past mining activities some portions of the town are peculiarly susceptible to subsidence. This is particularly so in the Sutton and Derbyshire Hill districts.

SOCIAL CONDITIONS.—The chief industries of the town are coal mining and glass making.

The average number of unemployed in St. Helens on the register of the Labour Bureau during 1927 (as shown by the figures taken on the first Monday in each month) was 2,738 men, 254 women, and 199 juveniles (total 3,191). The largest number of unemployed was 3,998 in December.

The total amount of domiciliary relief granted in St. Helens by the Board of Guardians during 1927 was £56,689/4/1, of which sum £24,223/16/1 was granted to unemployed men and their families. From St. Helens, 325 men, 140 women, and 110 children were admitted to the Poor Law Infirmary, and 260 men, 33 women, and 3 children were admitted to the "House" during the year.

Under the National Health Insurance Act, the total number of insured persons in St. Helens on 1st October, 1927, was 45,040 or approximately 40% of the total population.

METEOROLOGY.—The total rainfall for the year was 42·13 inches. The annual rainfall since 1890 is shown in Table 1. The highest temperature in the shade during the year was on the 7th August when it reached 79°F. The lowest was 23°F on the 20th December. The prevailing wind during the year was S.E.

Table I.

TOTAL RAINFALL IN INCHES IN ST. HELENS SINCE 1890.

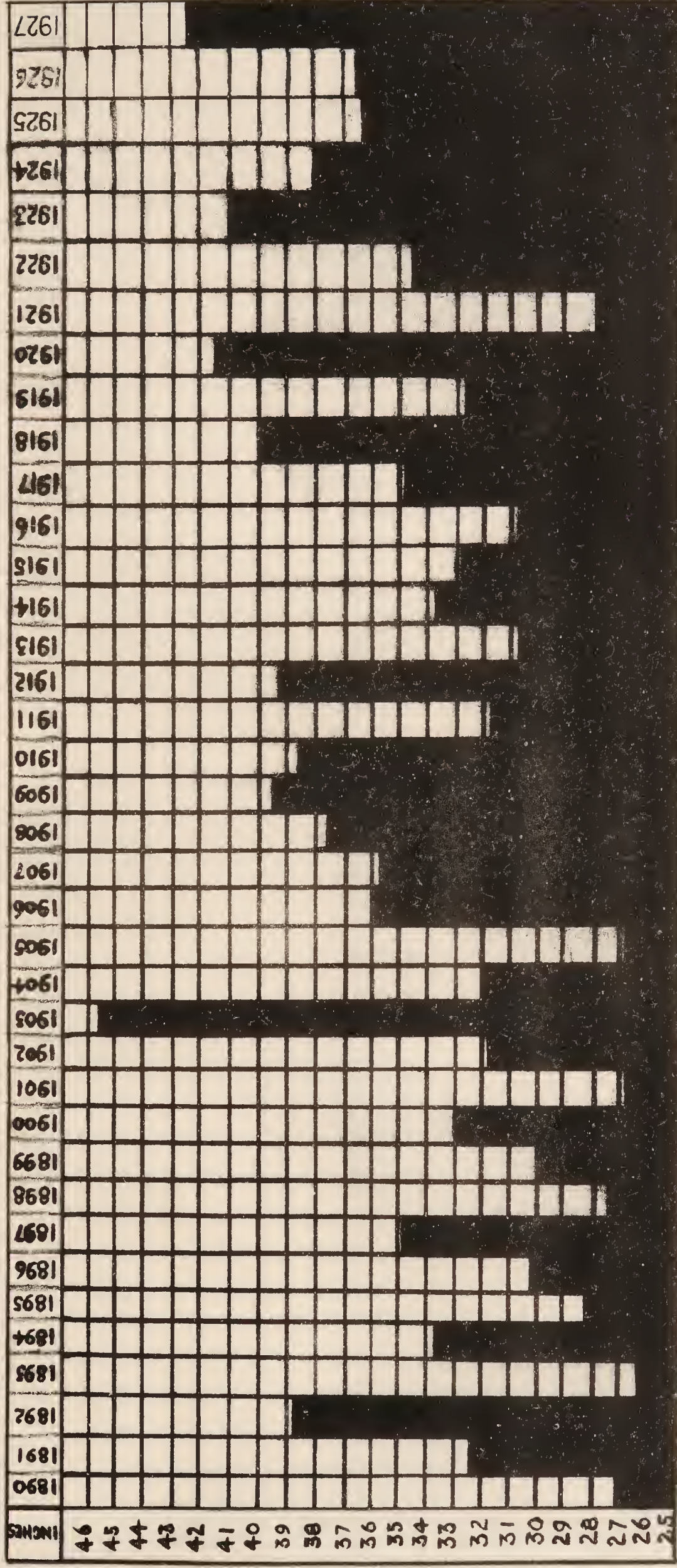


Table 2 shows the main vital statistics of St. Helens in comparison with those of other County Boroughs in Lancashire as well as with those for all the County Boroughs of the Northern Counties and all the County Boroughs of England and Wales.

Table 2.

COUNTY BOROUGH	Estimated civil population	Birth Rate	Crude Death Rate	Infant Mortality	Maternal Mortality	Tuber- culosis Death Rate (all forms) per million population
		per 1,000	population	per 1,000	births	
All County Boroughs of England and Wales ...	—	17.4	13.0	80	4.40	1153
All County Boroughs of Northern Counties ...	—	17.8	13.5	87	4.89	1189
Barrow-in-Furness ...	69,750	14.9	11.9	57	0.96	1133
Blackburn ...	124,500	13.7	15.0	78	8.23	916
Blackpool ...	93,160	11.5	14.5	69	5.60	784
Bolton ...	178,300	15.2	13.8	75	4.43	1043
Bootle ...	84,970	21.4	12.1	78	4.95	1448
Burnley ...	99,270	15.1	15.4	111	5.99	876
Bury ...	56,770	13.5	14.3	83	2.60	1075
Liverpool ...	856,266	21.8	13.7	95	4.57	1383
Manchester ...	764,420	17.3	14.0	86	4.99	1410
Oldham ...	141,400	14.7	14.6	87	11.10	884
Preston ...	127,100	14.9	14.1	109	4.76	968
Rochdale ...	91,060	14.0	16.2	87	11.01	857
ST. HELENS ...	113,100	20.8	11.4	88	3.39	849
Salford ...	247,600	17.3	13.7	79	3.97	1708
Southport ...	78,670	12.2	13.6	48	3.13	636
Warrington ...	78,680	19.7	10.9	77	5.14	1271
Wigan ...	88,690	18.8	14.1	104	5.40	1060

From this table it will be seen that of the 17 County Boroughs in Lancashire, St. Helens has the second lowest death rate, the third lowest tuberculosis death rate and the fourth lowest rate of maternal mortality. It is, however, fifth highest in the rate of infant mortality. The birth rate is the third highest in the list.

Table 3 gives a summary of the vital statistics for the past 50 years.

POPULATION.—According to the Registrar General's estimate, the population of St. Helens at 30th June, 1927 was

Table 3.

Statistics for St. Helens since 1878.

YEAR	Population	Birth Rate	Death Rate	Zymotic Death Rate	Infant Mortality Rate	Rate of Persons Married	DEATHS FROM							
							Small Pox	Measles	Scarlet Fever	Typhoid Fever	Typhus Fever	Diarrhoea	Whooping Cough	Diphtheria
1877	54,463	44.3	22.8	2.09	150	—	0	2	12	22	0	77	48	31
1878	57,534	43.2	23.9	3.09	165	—	0	4	22	35	0	135	15	74
1879	57,522	41.1	22.4	5.51	136	—	0	143	82	31	0	52	2	29
1880	58,807	41.6	20.0	2.92	169	—	0	0	27	32	0	131	71	8
1881	57,575	43.5	21.6	2.03	128	—	0	14	27	45	0	76	3	22
1882	58,903	43.7	25.4	4.95	180	—	0	205	35	24	0	85	36	38
1883	60,263	40.69	21.65	2.5	143	—	0	3	14	31	0	69	24	11
1884	61,584	42.50	24.16	5.3	173	—	0	131	16	33	2	131	9	11
1885	62,932	39.93	23.32	3.5	168	—	0	81	13	7	1	56	53	11
1886	64,311	40.70	22.46	5.2	172	—	0	102	34	28	0	122	41	10
1887	65,718	37.00	21.69	3.9	163	—	0	53	35	34	0	101	28	11
1888	67,158	39.20	19.80	3.1	151	—	0	38	11	22	0	65	61	21
1889	68,628	39.86	23.50	4.18	177	—	0	78	3	81	1	85	15	29
1890	70,132	38.90	25.43	5.3	170	—	0	19	181	24	1	74	68	13
1891	71,509	40.80	26.02	3.0	180	—	0	54	24	26	0	78	29	9
1892	72,399	40.2	21.0	2.64	147	—	1	23	18	25	0	84	31	12
1893	73,576	41.3	24.4	5.4	196	—	5	135	6	52	0	168	19	16
1894	*76,112	37.8	18.3	2.21	161	14.6	0	21	14	26	2	38	61	10
1895	77,288	40.9	21.8	3.10	181	13.0	1	54	9	59	0	101	14	8
1896	78,482	38.7	20.9	3.73	177	13.2	0	38	59	40	0	63	78	17
1897	79,694	40.0	21.8	4.3	181	14.2	0	87	44	33	0	133	33	20
1898	80,926	40.3	19.9	3.2	172	14.2	0	17	24	30	0	140	34	16
1899	82,176	38.3	20.4	2.9	157	13.0	0	21	8	43	0	114	41	15
1900	83,445	37.1	22.8	3.2	188	13.0	0	59	25	19	0	91	56	19
1901	84,734	36.9	19.7	2.56	175	13.9	0	7	29	34	0	95	17	3
1902	86,043	37.4	19.7	2.60	167	11.4	0	59	52	25	0	50	18	20
1903	87,372	39.1	17.5	1.72	138	13.0	0	1	26	18	0	53	30	23
1904	88,722	37.4	20.9	3.96	174	12.9	3	131	17	13	0	120	49	22
1905	89,843	36.05	17.2	1.88	132	11.7	0	41	16	2	0	66	26	18
1906	91,153	33.9	17.3	1.79	159	11.9	0	10	4	18	0	105	5	22
1907	92,476	34.1	18.3	2.87	155	13.6	0	145	10	12	0	36	52	11
1908	93,812	35.2	16.0	1.32	122	12.3	0	0	29	12	0	59	7	17
1909	95,161	32.0	18.5	3.5	149	12.7	0	188	33	13	0	27	62	12
1910	96,523	32.7	14.5	1.26	121	13.1	1	15	22	10	0	51	16	7
1911	96,870	33.5	18.3	3.03	158	12.7	0	69	13	22	0	143	39	8
1912	98,159	31.9	15.5	1.76	124	14.0	0	62	19	8	0	49	46	19
1913	99,460	32.1	18.9	3.74	155	14.6	0	189	26	4	0	120	18	15
1914	100,775	33.3	17.0	1.62	138	14.1	0	25	5	4	0	98	24	8
1915†	92,240	32.1	19.3	3.1	129	16.1	0	126	12	6	0	78	40	32
1916†	90,000	26.5	16.8	1.95	108	14.9	0	2	30	2	0	64	34	85
1917†	90,600	22.0	16.53	2.26	123	10.60	0	65	20	2	0	37	19	79
1918†	90,600	24.1	21.2	2.45	126	11.4	0	26	24	0	0	48	24	100
1919†	100,805	25.5	15.0	0.82	117	17.5	0	5	9	2	0	35	7	25
1920	104,822	31.8	13.5	1.2	113	16.8	0	56	7	0	0	44	7	13
1921	104,900	29.1	12.6	0.83	103	17.2	0	7	5	0	0	63	24	5
1922	106,400	26.4	13.4	0.93	115	11.5	0	60	4	2	0	28	3	5
1923	107,100	24.4	11.9	0.39	91	12.8	0	0	4	1	0	24	10	8
1924	108,700	24.1	12.0	0.68	103	12.7	0	29	1	2	4	36	11	4
1925	109,600	23.9	12.0	0.85	100	12.0	0	17	7	3	0	35	33	6
1926	110,000	23.2	12.0	0.62	102	10.2	0	27	1	0	0	43	4	6
1927	113,100	20.8	11.4	0.82	88	11.5	0	60	2	0	0	26	5	7

† Estimated civil population.

* Borough extended.

113,100. The corresponding estimate of population for 1926, was 110,000, so that the estimate for 1927 allows for an increase of population of 3,100 during the intervening 12 months. This is the highest increase since the census of 1921.

The natural increase in population during 1927, i.e., the excess of the number of births over deaths was 1,060 ; the natural increase in 1926 was 1,236.

BIRTHS.—The number of births registered in St. Helens during 1927 was 2,359. 35 births occurring in other districts were transferable to St. Helens and 35 occurring in the borough were transferred to other districts, making a total of 2,359 births belonging to the borough. The birth rate for the year was 20·8 per 1,000 of population, showing a decrease from the figure of 23·2 per 1,000 for the previous year. The rate for England and Wales during 1927 was 16·7 and for the 107 County Boroughs and Great Towns 17·1 per 1,000.

The following table shows the birth rate and the marriage rate for St. Helens for 1927, in comparison with the rates for quinquennial periods during the last 30 years.

	Period.				Birth Rate per 1,000 of the population.	Marriage Rate
1896-1900	37.0	13.5
1901-1905	33.5	12.7
1906-1910	37.3	13.5
1911-1915	32.5	14.3
1916-20	25.9	14.2
1921-25	25.5	13.2
1926	23.2	10.2
1927	20.8	11.5

In 1927, the male births numbered 1,203 and the female 1,156, being a proportion of 1,040 male to 1,000 female children born.

Illegitimate births were 3·3% of the total, as compared with 2·6% in the previous year. Table 4 gives the illegitimate birth rate since 1908.

Table 4.
Number of illegitimate births.

Years	...	...	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Number of illegitimate births			80	84	71	108	84	96	97	92	78	78	112	127	131	136	81	76	70	79	68	80
Proportion per 1,000 population			0.85	0.88	0.73	1.11	0.85	0.96	0.96	0.90	0.79	0.79	1.1	1.2	1.2	1.3	0.7	0.7	0.64	0.72	0.61	0.7

Table 5.
Number of marriages.

Years	...	...	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Number of Marriages			579	608	637	617	691	730	706	745	568	536	579	924	882	903	612	686	692	661	565	653
Marriage rate per 1,000 population			12.3	12.7	13.1	12.7	14.09	14.6	14.01	14.5	11.58	10.60	11.4	17.5	16.8	17.2	11.5	12.8	12.7	12.0	10.2	11.5

Table 6 shows the number of births notified in each ward during the year, and Table 7 shows the birth rate in St. Helens since 1873.

Table 6.

WARD	Number of births notified	Birth-rate per 1000 population	Number of deaths	Death-rate per 1000 population
Central	191	27.2	113	16.1
East Sutton	320	23.7	143	10.6
Hardshaw	239	18.1	163	12.3
North Eccleston	245	17.6	152	10.9
North Windle	260	18.1	156	10.8
Parr	299	21.2	159	11.2
South Eccleston	326	21.9	168	11.2
South Windle	190	21.6	114	12.9
West Sutton	308	22.7	131	9.6
Total	2378	21.0	1299	11.4
England and Wales ...	—	16.7	—	12.3
107 Great Towns	—	17.1	—	12.2

MARRIAGES.—The number of marriages during the year was 653, giving a rate of persons married of 11.5 per 1,000 of the population. Table 5 shows the rate for past years.

DEATHS.—The number of deaths occurring within the borough during the year was 1,253. This total includes 141 deaths in St. Helens of persons usually resident in other areas, but excludes 187 deaths of persons usually resident within the borough which occurred in other areas, so that the actual number of deaths assignable to St. Helens is 1,299. This gives a death rate of 11.4 per 1,000 of the population.

A comparison of the death rate in St. Helens during the past 50 years with the rate for England and Wales during the same period is seen in the following statement :—

TABLE 7.
BIRTH RATE - ST. HELENS, 1873-1927.



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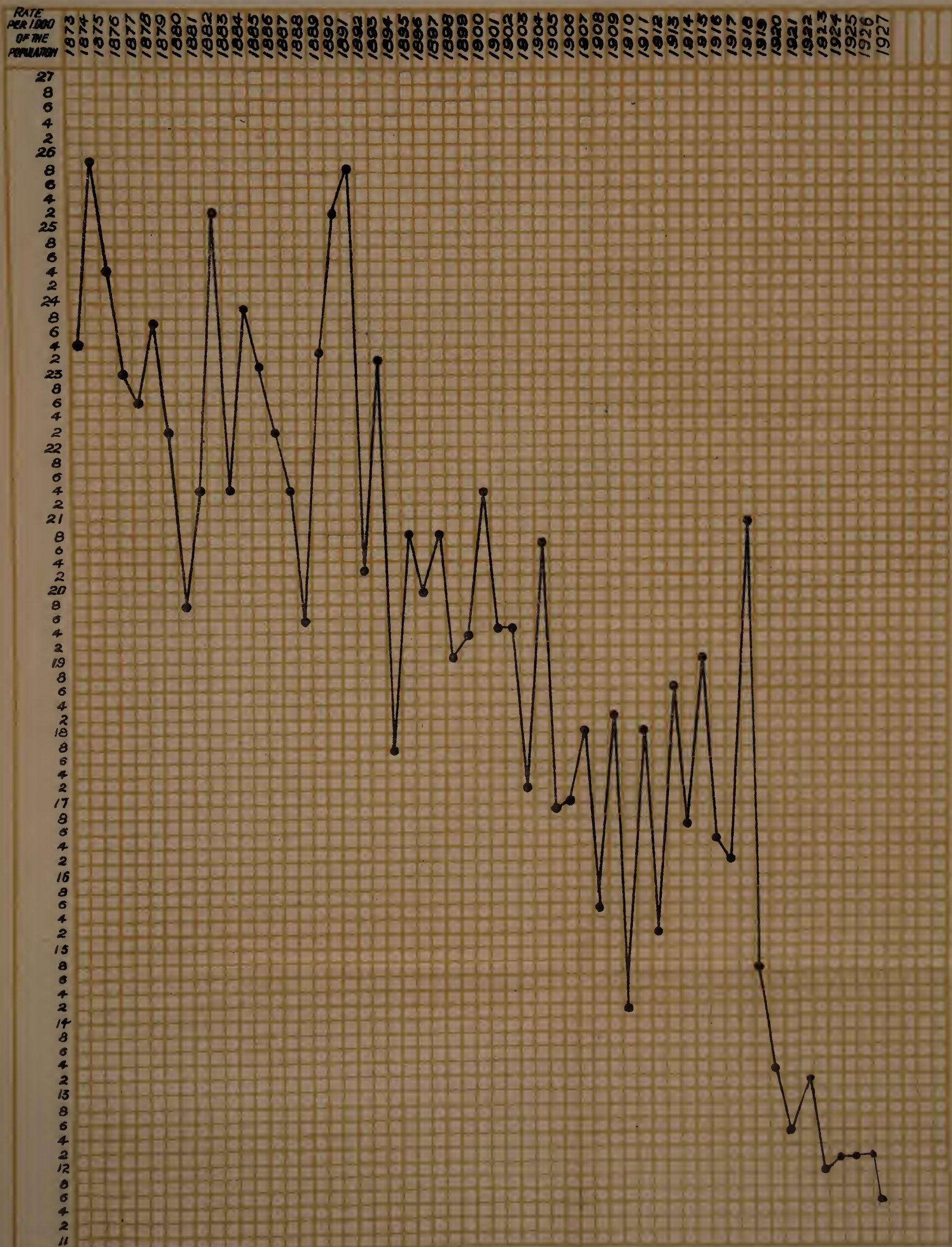
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1851-1852

1851-1852

TABLE 8.

DEATH RATE - ST HELENS, 1873-1927.



The death rate is not corrected for age & sex distribution.

Period.	Death Rate per 1,000 of the population.	
	St. Helens (crude).	England and Wales.
1876-80	22.5	20.8
1881-85	23.2	19.4
1886-90	22.5	18.9
1891-95	21.8	18.7
1896-1900	20.3	17.7
1901-05	19.0	16.0
1906-10	16.9	14.7
1911-15	19.8	14.3
1916-20	16.6	14.4
1921-25	12.3	12.1
1926	12.0	11.6
1927	11.4	12.3

Table 6 gives the number of births and deaths occurring in the different wards during 1927, and Table 8 shows the death rate in the borough since 1873.

Seasonal Deaths.—The following statement gives the number of deaths which occurred in St. Helens in each quarter of the year, with the death rate for each quarter, and the death rates for England and Wales for the same periods.

				Death rate per 1,000 of population.		
No. of Deaths.				St. Helens	England & Wales	
First Quarter ...	...	347	...	12.2	...	17.4
Second Quarter...	...	321	...	11.3	...	11.0
Third Quarter ...	...	256	...	9.0	...	9.3
Fourth Quarter ...	...	375	...	13.2	...	11.7

Coroners Inquests.—During the year 105 deaths were reported to the Coroner. In 49 of these the Coroner was able without an inquest to issue a certificate attributing the death to natural causes. In 56 instances an inquest was held, and in these cases the deaths were recorded as attributable to :—

Colliery Accidents	12
Street Accidents	9
Accidents in Works.....	2
Drowning	6
Poisoning	4
Scalds and Burns	5
Other Deaths from violence.....	15
Natural Causes	1
Other Causes	2

Causes of Death.—Figures relating to the causes of and ages at death during the year are given in Table 9.

Zymotic death rate.—The number of deaths caused by the seven “principal epidemic diseases” during 1927 was 93 giving a Zymotic death rate of 0·82 per 1,000 of the population.

The causes of these deaths were as follows :—

Diarrhœa and enteritis (under 2 years)	19
Whooping Cough	5
Measles	60
Scarlet Fever	2
Diphtheria (including membranous croup)	7
Fever (enteric, typhus, and simple continued fever)	0
Small-pox	0

Table 3 shows the figures since 1878.

Deaths from Tuberculosis.—Tuberculosis was the cause of 96 deaths during the year—that is 8·49% of all deaths belonging to the borough. Of these deaths 74 were attributable to tuberculosis of the lungs and 22 to other forms of tuberculosis. The ages at which these deaths occurred are shown in Table 9.

Malignant Diseases.—The deaths from these diseases during the past five years were as follows :—

AGE	1923	1924	1925	1926	1927
Under 1 year	—	—	—	—	—
1—2 years	1	—	—	—	—
2—3 „	—	—	—	—	1
3—4 „	—	—	—	—	—
4—5 „	—	—	—	—	—
5—10 „	—	—	—	—	1
10—15 „	—	—	—	—	—
15—20 „	—	1	1	—	—
20—35 „	6	3	2	6	7
35—45 „	8	7	4	—	4
45—65 „	43	54	50	52	55
65 and over	33	31	27	44	36
Totals	91	96	84	102	104
Death rate per 1,000 of population ...	0.84	0.88	0.76	0.92	0.91
Death rate per 1,000 of population, England and Wales	1.26	1.29	1.33	1.36	1.38

Table 9.

Cause of, and age at, death during 1927.

Causes of Death	Sex	All Ages	0-1	1-	2-	At 5-	Ages 15-	25-	45-	65	75-
All Cases	M F	705 594	125 83	35 43	33 28	31 16	40 32	87 67	174 139	115 113	65 73
Enteric Fever	M F	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Small-pox	F M	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Measles	M F	32 28	4 6	18 13	7 9	3 —	— —	— —	— —	— —	— —
Scarlet Fever	M F	1 1	— —	— —	1 —	— —	— 1	— —	— —	— —	— —
Whooping Cough.....	M F	— 5	— —	— 2	— 3	— —	— —	— —	— —	— —	— —
Diphtheria	M F	4 3	— —	— 1	— 1	4 1	— —	— —	— —	— —	— —
Influenza	M F	23 20	1 2	1 1	— —	2 —	2 1	6 5	7 4	4 5	— 2
Encephalitis Lethargica	M F	— 1	— —	— —	— —	— —	— —	— —	— 1	— —	— —
Meningococcal Meningitis	M F	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —
Tuberculosis of Respiratory System	M F	52 22	— —	— —	1 —	1 1	11 11	25 7	12 3	1 —	1 —
Other Tuberculous diseases	M F	9 13	— 1	— 2	1 1	3 1	3 3	1 3	— 1	1 1	— —
Cancer, Malignant disease	M F	54 50	— —	— —	1 —	1 —	— —	3 8	29 26	15 12	5 4
Rheumatic Fever.....	M F	6 3	— —	— —	— —	1 —	— —	4 1	1 2	— —	— —
Diabetes	M F	4 3	— —	— —	— —	— —	2 —	1 —	1 2	— —	— 1
Cerebral Haemorrhage, etc.	M F	29 43	1 —	— —	— —	— —	— —	1 1	5 10	9 23	13 9
Heart disease	M F	85 93	— —	— —	1 1	— 2	2 4	9 14	33 32	30 30	10 10
Arterio-sclerosis	M F	29 22	— —	— —	— —	— —	1 —	— 1	8 8	11 8	9 5
Bronchitis	M F	47 37	8 4	— 4	2 1	— —	— —	2 1	15 13	14 7	6 7
Pneumonia (all forms)	M F	85 38	18 7	8 12	8 3	4 4	8 1	11 5	20 1	6 2	2 3
Other respiratory diseases.....	M F	5 7	— —	2 1	— 1	— 1	— —	2 1	— 1	1 1	— 1
Ulcer of Stomach or duodenum.....	M F	4 —	— —	— —	— —	— —	— —	— —	4 —	— —	— —
Diarrhoea, etc.	M F	11 15	6 11	1 1	1 —	— 1	— —	— —	1 —	1 1	1 1
Appendicitis and typhlitis	M F	3 2	— —	— —	— 1	1 —	— 1	— —	2 —	— —	— —
Cirrhosis of Liver	M F	2 3	— —	— —	— —	— —	— —	— —	1 3	1 —	— —
Acute and chronic Nephritis	M F	16 11	— —	— —	2 1	1 1	1 —	1 3	8 3	2 3	1 —
Puerperal Sepsis	M F	— 6	— —	— —	— —	— —	— 2	— 4	— —	— —	— —
Other Accidents and diseases of pregnancy and parturition	M F	— 2	— —	— —	— —	— —	— —	— 2	— —	— —	— —
Congenital debility and malformation Premature birth	M F	63 44	62 41	1 —	— 1	— —	— —	— 1	— 1	— —	— —
Suicide	M F	7 4	— —	— —	— —	— —	— —	3 1	3 3	1 —	— —
Other Deaths from violence	M F	29 10	— 1	— 2	3 —	5 1	6 —	6 —	6 1	3 3	— 2
Other defined disease	M F	103 103	24 10	4 4	5 5	5 3	4 8	12 9	18 21	14 15	17 28
Causes ill-defined or unknown	M F	2 5	1 —	— —	— —	— —	— —	— —	— 3	1 2	— —
Totals		1299	208	78	61	47	72	154	313	228	138

As, however, malignant diseases are essentially diseases of adult and later life, and as the total population in St. Helens upon which the malignant death rate is calculated contains a much higher proportion of child life than obtains elsewhere, the figures given are not a true index of the deaths due to malignant diseases in St. Helens. In Lord Cozens-Hardy's report to the St. Helens Insurance Committee, however, it is shown that, were the population in each age group in St. Helens in the same proportion as those which obtain in England and Wales generally, the death rate from malignant diseases in St. Helens would still be 11% lower than that for the whole of England and Wales.

There would appear to be no relationship between the incidence of malignant diseases and industrial processes in St. Helens.

Other causes of death.—The following extract from Table 9 shows some of the other principal causes of death :—

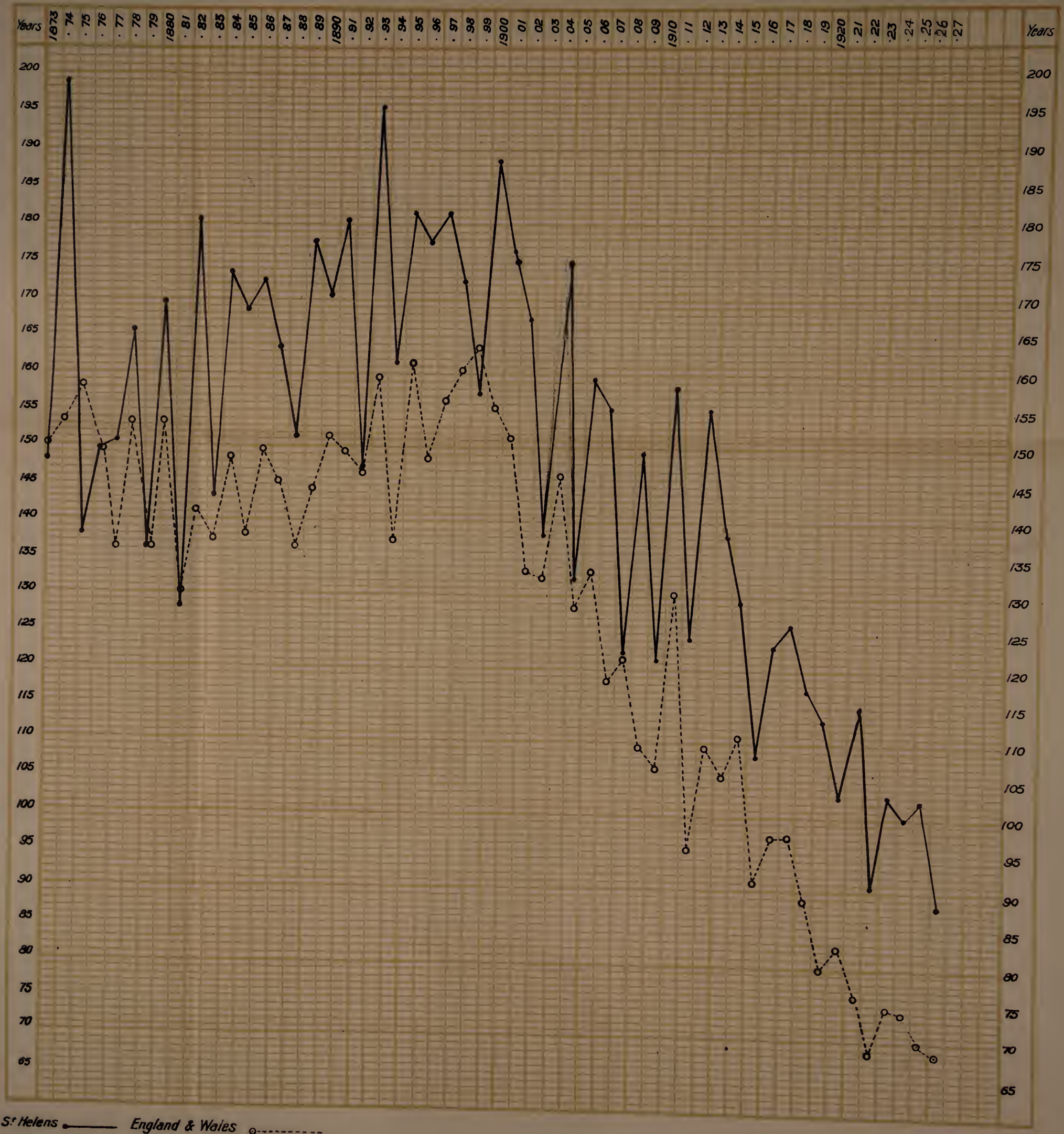
	Number	Percentage of total deaths
Pneumonia (all forms)	123	9·46
Bronchitis and other Respiratory Diseases	96	7·39
Heart Disease	178	13·7
Cerebral Hæmorrhage, etc.	72	5·54
Cancer and Malignant Disease.....	104	8·0
Suicide and other deaths from violence	50	3·84

Infant Mortality.—During 1927 there were 208 deaths of children under one year of age. This corresponds to an infant mortality rate of 88·1 per 1,000 births. The infant death rate for 1926 was 102·3.

Further reference to this important subject is made in the Maternity and Child Welfare Section.

Table 10 shows the infant death rate for St. Helens since 1873, and the figures for England and Wales for the same period.

Table 10.
INFANT MORTALITY RATE, S^T HELENS AND ENGLAND AND WALES 1873-1927.



S^t Helens — England & Wales ○-----

III.—INFECTIOUS DISEASES.

The following are the infectious diseases compulsorily notifiable to the Medical Officer of Health in St. Helens :—

Small Pox	Puerperal Fever
Scarlet Fever	Puerperal Pyrexia
Diphtheria and Membranous	Cerebro Spinal Fever
Croup	Acute Poliomyelitis
Enteric Fever	Acute Polio Encephalitis
Typhus Fever	Acute Encephalitis Lethargica
Relapsing Fever	Ophthalmia Neonatorum
Continued Fever	Erysipelas
Dysentery	Malaria
*Pneumonia	†Measles and German Measles
Cholera	†Whooping Cough
Plague	Tuberculosis (all forms)

**Acute Primary Pneumonia and Acute Influenzal Pneumonia.*

†*Notification by medical practitioner is not required if the disease "has occurred in the same family or institution and been notified within the period of two months immediately preceding the date on which he first becomes aware of a further case."*

Table 11 shows the total number of cases notified during the year, the total number of deaths which occurred, and the numbers admitted to the Corporation Hospitals.

Table 12 gives the age distribution of the cases notified, and table 9 the age distribution of the deaths which occurred. The number of cases notified during each week of the year is shown in Table 13, and the number of notifications each year during the past 10 years is seen in Table 14.

Table 11.

Infectious Diseases, 1927.—Total number of cases notified, number of cases admitted to hospital and the total deaths.

DISEASE	Notifications received	Cases admitted to hospital	Total Deaths
Small-pox	—	—	—
Diphtheria	131	144	7
Scarlet Fever	206	203	2
Enteric Fever	1	1	—
Typhus Fever	—	—	—
Puerperal Fever	6	6	6
Puerperal Pyrexia	23	7	
Erysipelas	70	13	3
Pneumonia	209	9	123
Ophthalmia Neonatorum	23	10	2
Polio-Myelitis	—	—	—
Encephalitis Lethargica	2	2	1
Cerebro Spinal Fever	—	—	—
Dysentery	1	—	—
Measles	2892	78	60
Whooping Cough	448	1	5
Malaria	1	—	—

Table 12.

Age distribution of cases of infectious Diseases notified during 1927.

DISEASE	Notifications received.	Under 1	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	206	1	6	13	15	21	104	33	7	6	—	—	—
Diphtheria... ..	131	2	7	10	11	14	44	19	8	11	4	1	—
Pneumonia	209	3	21	12	8	6	35	16	12	28	26	30	12
Erysipelas	70	1	1	—	—	—	—	—	2	15	13	29	9
Puerperal Fever	6	—	—	—	—	—	—	—	—	4	2	—	—
Puerperal Pyrexia	23	—	—	—	—	—	—	—	2	18	3	—	—
Ophthalmia Neonatorum... ..	23	23	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	1	—	—	—	—	—	—	—	—	1	—	—	—
Polio-myelitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	2	—	—	—	—	—	—	—	1	—	—	1	—
Cerebro Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	1	—	—	—	—	—	—	—	—	1	—	—	—
Whooping Cough	448	60	66	62	66	60	130	3	—	1	—	—	—
Measles	2892	237	401	446	484	474	809	35	4	1	—	1	—
Malaria	1	—	—	—	—	—	—	—	—	1	—	—	—

Table 13.

21

Infectious Diseases.—Number of cases of Infectious Disease notified each week in 1927.

Week Ending	Cerebro Spinal Fever	Diphtheria	Dysentery	Encephalitis Lethargica	Enteric Fever	Erysipelas	Malaria	Measles	Ophthalmia Neonatorum	Pneumonia	Polio-myelitis	Puerperal Fever	Puerperal Pyrexia	Scarlet Fever	Whooping Cough
Jan. 8	-	1	-	-	-	2	-	-	1	6	-	-	1	4	14
15	-	3	-	-	-	-	-	2	-	7	-	-	1	1	24
22	-	4	-	-	-	1	-	1	-	2	-	-	1	5	23
29	-	1	-	-	-	-	-	-	-	5	-	-	-	2	18
Feb. 5	-	1	-	-	-	2	-	1	-	6	-	-	1	1	12
12	-	-	-	-	-	4	-	2	1	11	-	-	-	1	17
19	-	3	-	-	-	3	-	-	-	8	-	-	-	3	11
26	-	11	-	1	-	3	-	4	2	9	-	-	1	2	7
Mar. 5	-	4	-	-	-	1	-	6	2	6	-	-	-	2	10
12	-	4	-	-	-	-	-	6	-	8	-	-	-	-	18
19	-	1	-	-	-	1	-	25	-	-	-	-	-	-	3
26	-	2	-	-	-	-	-	22	-	3	-	-	-	4	11
April 2	-	2	-	-	-	2	-	31	2	5	-	-	-	6	12
9	-	-	-	-	-	1	-	11	-	1	-	-	-	4	16
16	-	3	-	-	-	1	-	20	-	3	-	-	-	3	2
23	-	1	-	-	-	2	-	39	-	5	-	-	1	4	7
30	-	2	-	-	-	2	-	51	-	3	-	-	-	6	14
May 7	-	1	-	-	-	1	-	54	-	1	-	-	-	-	13
14	-	4	-	-	-	1	-	98	-	7	-	-	1	1	10
21	-	1	-	-	-	3	-	102	1	-	-	-	-	3	12
28	-	-	-	-	-	-	-	144	-	3	-	1	1	1	4
June 4	-	2	-	-	-	2	-	177	1	4	-	-	-	5	10
11	-	1	-	-	-	1	-	154	-	1	-	-	-	2	10
18	-	-	-	-	-	2	-	175	1	8	-	-	-	1	4
25	-	-	-	-	-	-	-	144	1	5	-	-	-	4	20
July 2	-	4	-	-	-	2	-	129	2	2	-	-	1	3	4
9	-	1	-	-	-	3	-	110	-	4	-	-	1	6	12
16	-	2	-	-	-	1	-	79	-	3	-	-	1	4	7
23	-	1	-	1	-	1	-	48	1	2	-	-	-	5	11
30	-	-	-	-	-	1	-	52	-	5	-	-	-	5	1
Aug. 6	-	-	-	-	-	2	-	42	-	-	-	-	-	2	2
13	-	3	-	-	-	-	-	29	-	2	-	-	-	3	3
20	-	2	-	-	-	-	-	19	-	1	-	2	-	1	3
27	-	2	-	-	-	-	-	11	-	1	-	-	-	1	4
Sept. 3	-	2	-	-	-	1	-	11	-	2	-	-	-	5	3
10	-	2	-	-	-	2	-	13	-	-	-	-	-	5	4
17	-	6	-	-	-	2	-	3	-	2	-	-	-	4	4
24	-	3	-	-	-	1	-	20	1	2	-	-	1	9	3
Oct. 1	-	5	-	-	-	-	-	15	1	5	-	1	-	6	7
8	-	7	-	-	-	-	-	35	-	7	-	-	-	9	5
15	-	5	1	-	-	3	-	127	-	4	-	-	1	8	9
22	-	1	-	-	-	2	-	126	-	5	-	-	2	6	1
29	-	4	-	-	-	1	-	155	-	4	-	-	-	7	4
Nov. 5	-	5	-	-	-	1	-	106	2	5	-	-	1	7	16
12	-	1	-	-	-	2	-	126	-	5	-	1	1	3	7
19	-	3	-	-	-	2	-	57	-	5	-	-	3	8	7
26	-	2	-	-	-	-	-	74	-	6	-	1	-	4	8
Dec. 3	-	3	-	-	-	3	-	61	1	8	-	-	1	5	4
10	-	3	-	-	-	1	-	66	-	1	-	-	-	5	3
17	-	1	-	-	1	2	-	48	1	3	-	-	-	7	9
24	-	8	-	-	-	1	-	34	-	-	-	-	-	4	4
31	-	3	-	-	-	1	1	27	2	8	-	-	2	9	1
TOTAL*	=	131	1	2	1	70	1	2892	23	209	-	6	23	206	448

Table 14.

Notifications of Infectious Disease received during the undermentioned years.

	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Diphtheria ...	756	237	128	51	88	105	89	145	103	131
Scarlet Fever ...	568	221	474	232	190	258	163	241	153	206
Enteric Fever ...	7	7	—	2	3	2	2	7	1	1
Puerperal Fever ...	8	17	13	18	10	4	17	16	7	6
†Puerperal Pyrexia ...	—	—	—	—	—	—	—	—	10	23
*Pneumonia ...	—	322	148	77	233	190	126	242	256	209
Erysipelas ...	68	72	53	79	42	53	40	70	42	70
Ophthalmia Neonatorum ...	40	76	63	42	48	30	34	16	23	23
Poliomyelitis ...	2	1	1	2	1	1	1	1	—	—
Continued Fever ...	—	—	—	1	—	—	—	—	—	—
§Encephalitis Lethargica ...	—	2	4	1	—	9	4	2	3	2
§Polio-Encephalitis ...	—	—	—	2	—	—	—	—	—	—
*Dysentery ...	—	54	17	21	42	6	—	3	6	1
*Malaria ...	—	158	22	2	—	—	—	—	—	1
‡Measles ...	1106	913	2960	196	3437	74	3513	1850	1625	2892
‡Whooping Cough ...	814	206	287	576	388	895	235	920	304	448
Cerebro-Spinal Fever	—	3	1	—	—	1	2	2	2	—
Small Pox ...	—	—	—	—	1	—	—	—	—	—
Typhus Fever ...	—	—	—	—	—	—	8	—	—	—

* Notifiable since 1st March, 1919.

‡ Compulsorily notifiable since 1st August, 1915, previous to which date information was only received through the schools.

§ Compulsorily notifiable since 1st January, 1919.

† Notifiable since 1st October, 1926.

SMALL POX.—No case of Small Pox was notified during the year.

The extent of vaccination in St. Helens since 1901 is shown in Table 15.

Table 15.

Vaccination returns since 1901.

YEAR	2 Vaccinated	3 Insus- ceptible	4 Dead	5 Con- scientious Objector	6 Post- poned	7 Re- moved	8 Unaccounted	Percentage not Vaccinated including Columns 5, 6, 7, 8
1901	2,639	4	391	11	29	59	24	4.4
1902	2,788	4	342	7	12	58	34	3.8
1903	2,977	8	325	2	6	62	11	2.6
1904	2,940	7	341	10	10	42	25	2.8
1905	2,923	3	270	6	10	29	18	2.1
1906	2,733	5	318	8	12	39	22	2.8
1907	2,810	9	257	24	19	49	17	3.7
1908	2,858	18	248	70	11	35	20	4.5
1909	2,720	8	241	81	9	33	11	4.7
1910	2,731	3	255	131	3	23	19	6.0
1911	2,750	9	277	148	5	26	14	6.5
1912	2,646	4	294	216	12	23	4	8.7
1913	2,499	6	296	339	14	27	9	13.0
1914	2,654	11	281	348	6	22	24	13.0
1915	2,352	2	189	367	9	34	15	15.3
1916	2,056	4	186	287	3	39	24	14.6
1917	1,702	4	158	267	1	6	45	15.7
1918	1,861	0	201	281	8	40	19	14.5
1919	1,999	2	189	385	4	25	18	17.8
1920	2,452	1	223	553	12	18	23	19.8
1921	2,234	2	179	530	6	29	17	20.6
1922	2,143	7	185	411	5	27	23	17.8
1923	2,144	10	139	261	4	10	22	12.17
1924	2,227	7	156	157	6	12	25	8.24
1925	2,150	2	147	234	8	10	26	11.45
1926	2,084	8	151	237	14	9	14	11.62 †

† Of the 11.62 per cent unvaccinated, 10.05 per cent. are conscientious objectors.

SCARLET FEVER.—During 1927, 206 cases were notified with two deaths. The following statement shows the age distribution of the cases occurring and of the deaths :—

Age.	No. of Cases.	No. of Deaths.	Case Mortality.
Under 5 years.....	56	...	1.8%
5—15 years.....	137	...	—
15—35 „	13	...	7.6%
35—45 „	—	...	—
45—65 „	—	...	—

DIPHTHERIA.—During 1927, 131 cases were notified with seven deaths. The following statement shows the age distribution of the cases and of the deaths occurring :—

Age.	No. of Cases.	No. of Deaths.	Case Mortality.
Under 5 years.....	44	2	4·5 %
5—15 years.....	63	5	7·9 %
15—35 „	19	—	—
35—45 „	4	—	—
45—65 „	1	—	—

Diphtheria antitoxin may be obtained by medical practitioners either at the office of the Medical Officer of Health or at the Borough Isolation Hospital.

No use has been made of the Shick or Dick tests for Diphtheria or for Scarlet Fever, nor have recent artificial methods of immunization against these diseases been practised.

ENTERIC FEVER.—One case was notified during the year. This proved to be a paratyphosus B. infection which was confirmed by two blood reactions. The first test was inconclusive, but the second was a positive reaction in all the usual dilutions. The patient, a female adult, was admitted to Peasley Cross Isolation Hospital and finally recovered. Enquiry into the origin of the case suggested the husband as a possible source of infection as he had recently recovered from a chronic condition in which diarrhoea had been a prominent symptom. Examinations of his blood and faeces were, however, negative.

✧**MEASLES.**—During 1927, an extensive epidemic of measles occurred, the epidemic reaching its height in May and June with a recurrence in October and November. During the year 2,892 cases were notified with 60 deaths.

✧ **Note.**—Further details regarding these diseases will be found in that section of the report dealing with Maternity and Child Welfare. Page 44.

The following statement shows the age distribution of the cases and of the deaths occurring :—

Age.	No. of cases.	No. of Deaths.	Case Mortality.
Under 5 years.....	2042	... 57	... 2·7%
5—15 years	844	... 3	... 0·3%
15—35 „	5	... —	... —
35—45 „	1	... —	... —
45—65 „	—	... —	... —

✦**WHOOPING COUGH.**—During 1927, 448 cases were notified with five deaths. The age distribution of these cases and of the deaths was as follows :—

Age.	No. of Cases.	No. of Deaths.	Case Mortality.
Under 5 years.....	314	... 5	... 1·5%
5—15 years	133	... —	... —
15—35 „	1	... —	... —
35—45 „	—	... —	... —
45—65 „	—	... —	... —

✦**PUERPERAL FEVER AND PUERPERAL PYREXIA.**—Six cases of Puerperal Fever and 23 cases of Puerperal Pyrexia were notified during the year, and six deaths were registered as due to Puerperal Sepsis.

✦**OPHTHALMIA NEONATORUM.**—23 cases were notified during 1927.

CEREBRO-SPINAL MENINGITIS, POLIOMYELITIS, AND POLIO-ENCEPHALITIS.—No cases of these diseases were notified during 1927.

✦ Note.—Further details regarding these diseases will be found in that section of the report dealing with Maternity and Child Welfare. Page 44.

ENCEPHALITIS LETHARGICA.—Two cases were notified and one death was attributed to this cause.

ERYSIPELAS.—During 1927, there were 70 notifications, and three deaths are attributed to this disease.

DYSENTERY.—Only one case of this disease was notified during the year. This occurred in a patient in the County Mental Hospital, Rainhill.

MALARIA.—One case was notified during the year. This was in a patient who had returned from India and had contracted the disease in that country.

NON-NOTIFIABLE ACUTE INFECTIOUS DISEASES.—There was no particular incidence of any of the non-notifiable infectious diseases during the year.

The number of deaths from Diarrhoea, etc., in children under 2 years of age fell from 31 in 1926 to 19 in 1927. There is no doubt, however, that the majority of these deaths are not due to infective diarrhoea, but result from gastric and intestinal disturbances of a non-infectious character.

Deaths attributed to Influenza during the year numbered 43, giving an Influenzal death rate of 0·38 per 1,000 of the population.

BOROUGH ISOLATION HOSPITAL.—This hospital is situated at Peasley Cross, and has accommodation for 136 patients. There is no resident medical officer. Cases are also admitted to this hospital from the Urban District of Haydock. At the beginning of the year there were 37 patients in hospital. New cases admitted during the year numbered 622, making a total number

of 659 patients dealt with. At the end of the year there were 63 patients remaining. The highest number of patients under treatment at any one time was 84, and the lowest, 29.

The details of admissions and discharges are shown in Table 16.

Table 16.

Peasley Cross Isolation Hospital
Record of cases treated during 1927.

DISEASE	In hospital Jan. 1st, 1927	Admitted	Discharged	Died	In hospital Jan. 1st, 1928
Scarlet Fever ...	19	219	204	1	33
Diphtheria ...	3	104	87	7	13
Puerperal Fever ...	3	12	10	4	1
Venereal Disease ...	—	8	7	—	1
Measles ...	—	69	56	11	2
Other Diseases ...	11	185	165	20	11
Mothers with sick babies	—	7	7	—	—
Babies with sick mothers	1	18	15	2	2
Total ...	37	622	551	45	63

AMBULANCE PROVISION.—Two motor ambulances are kept at the Isolation Hospital to convey patients to either of the Corporation Hospitals. During the year the total distance travelled was 11,448 miles.

DISINFECTION.—Disinfection of premises by means of formalin sprays is carried out by the disinfectors from the Medical Officer's Department, and bedding and articles of clothing, etc. are disinfected by steam or other appropriate method at the Borough Isolation Hospital. During the year the disinfectors dealt

with 2,834 premises, and the numbers of articles disinfected at the Isolation Hospital were as follows :—

	Articles.
Blankets, Sheets and Rugs	4,490
Hospital Clothing and Bedding.....	2,987
Pillows and Cushions	2,187
Mattresses, etc.	597
Other Articles of Clothing	953
Library Books.....	74
Other Articles	649

There is no municipal cleansing station, but facilities for the cleansing and disinfection of persons and their belongings are afforded at the Borough Isolation Hospital. School children are also removed to this Institution for compulsory cleansing when required.

IV.—LABORATORY WORK.

The majority of the routine bacteriological and pathological examinations are carried out by the medical staff at the Borough Laboratory at the Town Hall, but bloods for the Wasserman reaction and specimens of an unusual nature are examined at the City Laboratories, Liverpool. Table 17 shows the numbers of specimens dealt with during 1927.

Outfits for the collection of specimens of sputa, blood specimen, throat swabs, etc., are supplied free of charge.

Table 17.

SPECIMENS.	Number Received	Results	
		Positive	Negative
Swabs for Diphtheria	2270	241	2029
Blood for Typhoid Fever	20	2	18
Sputa for Tuberculosis	651	209	442
Hairs for Ringworm	72	19	53
Blood for Wasserman Reaction	232	78	154
Films for Gonococci	191	92	99
Pus and other fluids and discharges for various organisms	72	19	53
Other Specimens	24	6	18
Total	3532	666	2866

Specimens requiring chemical analysis are dealt with by the Public Analyst at his laboratories.

V.—TUBERCULOSIS.

INCIDENCE.—Particulars of new cases of Tuberculosis notified in the area during 1927, are given in Table 18 and the number of new cases each year since 1912 in Table 19.

Table 18.

Particulars of new cases and of deaths during 1927.

Ages	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 1 year ...	—	—	1	2	—	—	—	1
1 to 5 years ...	2	2	6	7	1	—	1	3
5 to 10 years ...	7	9	8	5	1	—	2	1
10 to 15 years ...	2	8	8	3	—	1	1	—
15 to 20 years ...	6	4	7	—	3	4	2	1
20 to 25 years ...	11	9	2	2	8	7	1	2
25 to 35 years ...	17	11	5	2	15	6	1	2
35 to 45 years ...	16	3	1	1	10	1	—	1
45 to 55 years ...	15	3	—	—	11	3	—	1
55 to 65 years ...	1	2	—	1	1	—	—	—
65 upwards ...	1	—	—	—	2	—	1	1
Totals ...	78	51	38	23	52	22	9	13

Table 19.

Number of new cases notified and number of deaths each year, 1912 to 1927.

Year	Cases notified		Deaths		Death Rate per 10,000 of population	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
1912	130	—	91	65	9.27	6.02
1913	253	164	100	90	10.05	9.0
1914	207	116	113	65	11.2	6.45
1915	203	126	99	56	10.7	6.07
1916	189	137	127	41	14.1	4.5
1917	198	62	121	42	13.3	4.64
1918	144	40	107	34	11.8	3.75
1919	150	56	99	31	9.8	3.08
1920	221	65	82	37	7.9	3.53
1921	179	63	102	32	9.7	3.05
1922	167	58	78	39	7.3	3.66
1923	141	45	85	27	8.0	2.52
1924	154	75	118	27	10.8	2.48
1925	141	88	97	25	8.8	2.28
1926	140	68	91	32	8.2	2.92
1927	129	61	74	22	6.5	1.95

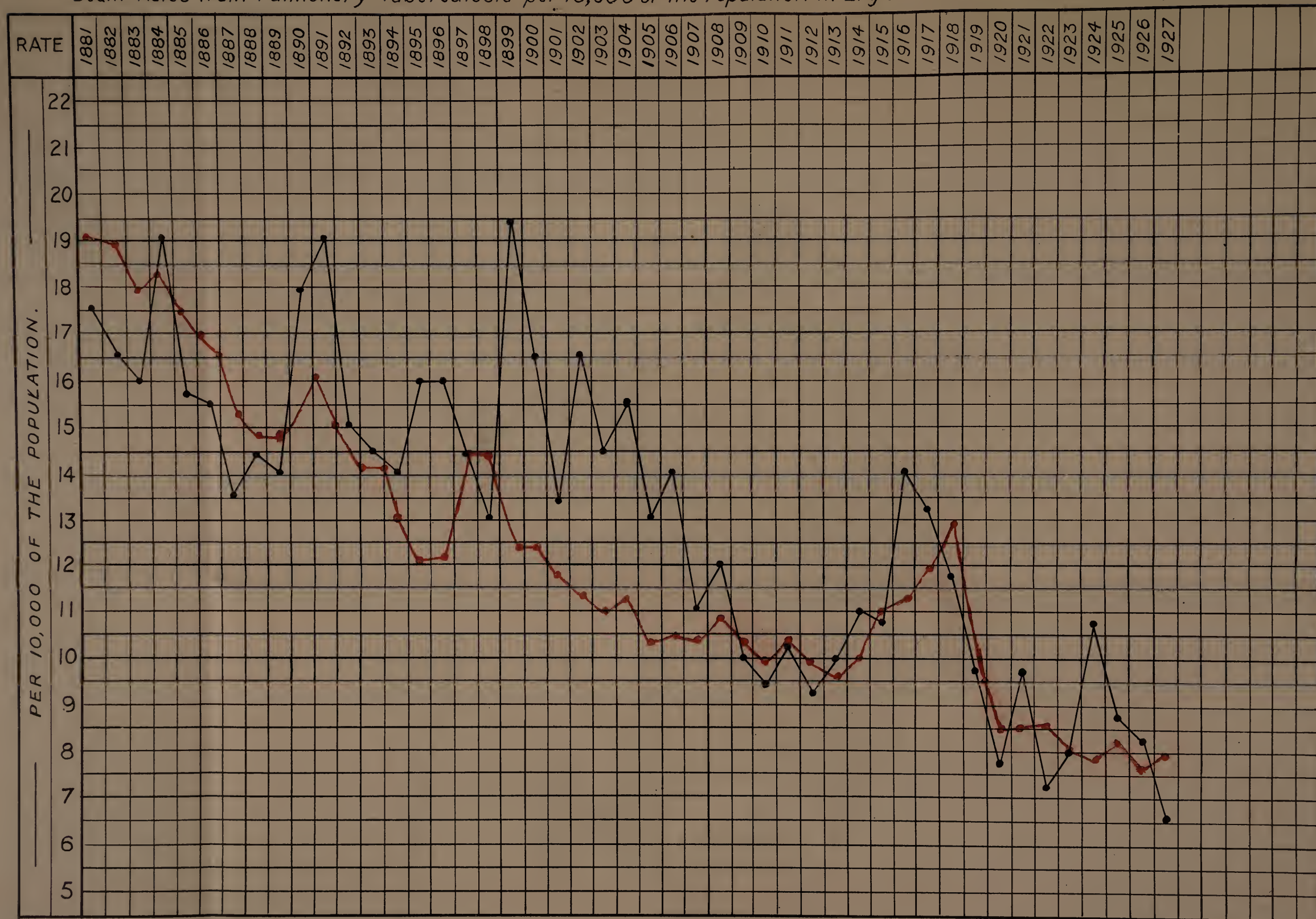
At the end of 1927, there remained on the Tuberculosis Register in St. Helens 533 cases of pulmonary and 467 cases of non-pulmonary tuberculosis.

Of the 129 new cases of pulmonary tuberculosis notified during 1927, 29 died during the year and the average duration of life in these cases was 60.9 days. In 7 cases death occurred within one week of notification. Furthermore, of the 74 deaths from pulmonary tuberculosis registered during 1927, 7 were not previously notified as suffering from the disease.

Though in recent years there has been some improvement in regard to notification, the percentages of late notifications and of non-notifications is still too high. During 1927, 19% of the cases that died from pulmonary tuberculosis during the year either died within one week of notification or were never notified at all. This indicates either a lamentable failure to diagnose the disease or an indifference to the regulations regarding notification. Yet early diagnosis and early notification are essential not only in the

Table 20.

Death Rates from Pulmonary Tuberculosis per 10,000 of the Population in England & Wales and St. Helens, 1881-1927.



Black: St. Helens.
Red: England and Wales.

interest of the patient, but also in the interest of all contacts. It can never be urged too strongly or too frequently that the early stage of the disease is the curable stage. Cures can never be obtained from a bottle of medicine—fresh air, good food, and an orderly hygienic life are essential and these are best obtained by a period of sanatorium treatment. To neglect such treatment not only shortens the life of the patient, but adds enormously to the risk of infection of others. Early diagnosis gives the patient the best chance of recovery and early notification makes available to the patient that assistance which he cannot otherwise obtain.

MORTALITY.—During 1927, there were within the borough 96 deaths from all forms of tuberculosis, giving a Tuberculosis Death Rate of 8·49 per 10,000 of the population. Of these deaths 74 were due to pulmonary tuberculosis and 22 to non-pulmonary tuberculosis, giving a pulmonary death rate of 6·54 per 10,000 of the population and a non-pulmonary death rate of 1·95.

The ages at which these deaths occurred are shown in Table 9 and the number of deaths and the death rate from each form of the disease each year since 1912 in Table 19.

The great reduction that has taken place in the pulmonary death rate during the past 45 years is shown in the accompanying chart (Table 20) which also gives the corresponding figures for England and Wales.

TUBERCULOSIS DISPENSARY.—During 1927, five sessions per week were held at the Central Dispensary for ordinary cases and one session weekly for X-ray. One session was held weekly at Sutton.

Table 21.

Record of the work of the Dispensary during 1927.

	Pulmonary				Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children	
	M	F	M	F	M	F	M	F	M	F	M	F
A. New cases examined (excluding contacts)												
1. Definitely Tuberculous ...	47	23	8	11	4	5	10	9	51	28	18	20
2. Doubtfully Tuberculous ...	—	—	—	—	—	—	—	—	17	16	20	21
3. Non-Tuberculous ...	—	—	—	—	—	—	—	—	6	8	11	9
B. Contacts examined												
1. Definitely Tuberculous ...	1	—	—	2	1	—	—	—	2	—	—	2
2. Doubtfully Tuberculous ...	—	—	—	—	—	—	—	—	5	13	15	11
3. Non-Tuberculous ...	—	—	—	—	—	—	—	—	5	3	29	27
C. Cases written off Register												
1. Cured	6	5	1	—	—	2	3	3	6	7	4	3
2. Diagnosis not confirmed or Non-Tuberculous ...	—	—	—	—	—	—	—	—	35	34	59	59
D. Number of persons on Register 31st December												
1. Diagnosis completed ...	144	80	32	36	37	38	73	71	181	118	105	107
2. Diagnosis not completed ...	—	—	—	—	—	—	—	—	52	47	33	33

During the year, 225 new cases, and 112 contacts were added to the Dispensary Register, and 92 cases were re-entered on the Register or were transferred from other areas : 20 cases were discharged from the Register as cured, 187 were written off as not tubercular, 69 died, and 6 were transferred to other areas or were lost sight of. This left at the end of the year 676 persons on the Register.

The total number of attendances made at the Dispensary was 2,950, giving an average weekly attendance of 57. A detailed return showing the work of the Dispensary during the year is given in Table 21. The number of consultations with medical practitioners was :—

- (a)—At the homes of the patients..... 7
- (b)—Otherwise 64

The number of X-ray examinations made at or in connection with the Dispensary was 45 of chests and 2 of bones and joints. 22 cases of tubercular adenitis and 12 cases of tubercular skin affections made 583 attendances for X-ray treatment.

During the year, 651 specimens of sputum were examined and 209 found positive.

During the year the tuberculosis officer paid 183 visits to the homes of patients, and in the following-up of cases 4,638 visits were paid by the tuberculosis nurse and health visitors.

The number of insured persons on the Dispensary Register at the 31st December, 1927 was 207, of whom 29 were receiving domiciliary treatment.

Home disinfection of premises and bedding is carried out on all occasions when a definitely tubercular patient is removed to hospital and after the death of a patient at home. Intermediate disinfection is carried out as circumstances merit. During the year disinfection was performed in 381 instances.

Owing to the scarcity of suitable premises in conjunction with patients' homes, shelters are not provided in St. Helens.

There are no arrangements under the Tuberculosis Scheme for the provision of Home Nursing in St. Helens, but many of the cases are dealt with by the St. Helens and District Nursing Association.

During the year no cases have come to notice in which action was required under the Public Health (Prevention of Tuberculosis) Regulations, 1925 (control of tuberculous persons employed in the milk trade), nor has it been necessary to obtain compulsory removal to hospital of any patient under the Public Health Act, 1925, Section 62.

NON-PULMONARY TUBERCULOSIS.—During 1927, 34 patients suffering from tubercular glands or from Lupus made 583 attendances at the Dispensary for X-ray treatment, and 38 patients suffering from the following types of diseases received treatment at various residential institutions during the year :

Bones and Joints.....	20
Abdominal	6
Glandular	7
Other Organs	5

For crippling defects, the combined Orthopaedic Scheme for the Tuberculosis, Maternity and Child Welfare and School Medical Services has provided a long felt want. Under that scheme, crippled children are classified into three groups, viz. :—

- (a) Non-tubercular children under 5 years of age.
- (b) Children of school age in whom the crippling is due to causes other than tuberculosis.
- (c) Children in whom the crippling is due to tuberculosis.

A record of the work carried out during 1927 under the scheme is shown in Table 22. The supply and repair of splints and appliances is undertaken by the St. Helens Crippled and Invalid Children's Aid Society.

From Table 22 it will also be seen that on the Tuberculosis side 36 cases were dealt with during the year, involving 115 attendances to see the orthopaedic surgeon, and 258 attendances for intermediate treatment. Further, 17 cases received hospital treatment for an aggregate of 3,531 days.

1927 a greater willingness on the part of contacts to attend the Dispensary for examination. In the previous year many contacts were seen at their own homes, but this is never very satisfactory as, not only is it extremely difficult to examine them properly at their homes, but it is also frequently desirable that a contact be kept under observation for a short period before giving a definite opinion.

Re-examinations are carried out as and when circumstances indicate. School children contacts are kept under supervision by the School Medical Service. Doubtful cases, which cannot be decided after a short period of clinical observation, are submitted to X-ray diagnosis or admitted to the Sanatorium for special observation.

DENTAL TREATMENT.—In-patients at Eccleston Hall Sanatorium are examined regularly by the dental surgeon and minor treatments such as extractions, fillings, etc., are carried out and in special cases dentures are supplied. There is no special scheme for dealing with patients attending the Dispensary but urgent cases are from time to time referred to the dental surgeon for treatment.

INSTITUTIONAL TREATMENT.—Institutional treatment for cases of tuberculosis in St. Helens is provided as follows :—

(a)—Eccleston Hall Sanatorium :—maintained by the St. Helens Corporation. This institution contains 70 beds with accommodation for approximately 30 men, 18 women, and 22 children. The institution is primarily for pulmonary tuberculosis, but non-active non-pulmonary cases are admitted as and when necessary.

Though originally intended for sanatorium treatment only, it has been found necessary to use this institution also for advanced cases, the proportions being approximately equal. There is a Sanatorium School for children in-patients.

(b)—Four beds are reserved at the Liverpool Sanatorium, Delamere, for early pulmonary cases.

(c)—Six beds are reserved at the Leasowe Open Air Hospital for Children for non-pulmonary cases.

(d) Occasional beds are taken as and when required for special cases at various institutions.

The average number of beds available during 1927, was as follows :—

	Observation	Pulmonary Tuberculosis	Non-Pulm. T.B.		Total
		Sanatorium and Hospital Beds	Diseases of bones and joints	Other conditions	
Adult Males	1	30	—	—	31
Adult Females	1	20	—	—	21
Children under 15 ...	2	4	10	12	28
Totals	4	54	10	12	80

Table 23 shows the extent of institutional treatment provided during 1927, and Table 24 shows the immediate results of treatment of patients discharged during the year.

Table 23.

Return showing the extent of Institutional Treatment during the year 1927.

			In Insti- tutions on Jan. 1	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of Patients	Adults	M.	29	65	51	11	32
		F.	15	34	28	8	13
	Child- ren	M.	17	16	18	2	13
		F.	18	25	25	1	17
Number of Observation Cases	Adults	M.	1	—	1	—	—
		F.	—	1	1	—	—
	Child- ren	M.	—	1	1	—	—
		F.	1	7	7	—	1
	Total	...	81	149	132	22	76

Table 24.

Return showing the immediate results of treatment of patients and of observation of doubtful cases discharged from Residential Institutions during the year 1927.

Classification on admission to the Institution	Condition at time of discharge	Duration of Residential Treatment in the Institution												Total	
		Under 3 months			3—6 months			6—12 months			More than 12 months				
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
§ Pulmonary Tuberculosis	Class T.B. minus	Quiescent ... ..	...	...	...	...	...	...	1	...	1	...	...	3	5
		Improved	1	6	6	5	...	2	9	2	2	1	1	2	37
		No material improvement ...	3	1	1	...	...	...	...	...	...	...	1	...	6
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Class T.B. plus Group 1	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved	4	1	...	1	3	...	2	1	...	2	...	...	14
		No material improvement ...	1	1	1	...	...	...	2	...	...	...	...	...	5
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Class T.B. plus Group 2	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved ... ..	...	...	...	...	3	1	1	...	...	4	...	...	9
		No material improvement ...	2	1	...	1	...	1	...	...	...	1	...	...	6
		Died in Institution ... ..	...	...	...	...	...	...	1	...	...	...	...	...	1
	Class T.B. plus Group 3	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved ... ..	...	1	...	...	...	...	1	...	...	...	...	...	2
		No material improvement ...	4	5	...	1	...	...	...	...	...	1	...	...	11
		Died in Institution	8	6	1	1	1	1	...	...	...	1	1	...	20
Non-Pulmonary Tuberculosis	Bones and Joints	Quiescent or arrested ...	...	...	...	...	...	...	...	...	1	...	...	2	3
		Improved ... ..	...	...	1	...	...	...	...	...	1	...	...	1	3
		No material improvement ...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Abdominal	Quiescent or arrested ...	...	...	1	...	...	...	...	...	1	...	...	...	2
		Improved	1	...	...	1	...	2	...	...	1	...	...	1	6
		No material improvement ...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ... ..	...	...	1	...	...	...	...	...	...	...	...	...	1
	Other Organs	Quiescent or arrested ...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved ... ..	...	...	1	...	...	...	...	...	1	...	...	1	3
		No material improvement ...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Peripheral Glands	Quiescent or arrested ...	...	...	...	...	...	...	...	...	1	...	...	1	2
		Improved ... ..	...	...	...	1	...	...	...	1	1	...	...	...	3
		No material improvement ...	...	...	2	...	...	...	...	...	...	...	...	...	2
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Observation for purpose of diagnosis			Under 1 week			1—2 weeks			2—4 weeks			More than 4 weeks			
	Tuberculous ... ..	...	...	...	...	...	...	...	...	...	1	...	...	4	5
	Non-tuberculous ... ..	...	...	...	...	...	...	...	...	...	...	...	...	3	3
	Doubtful ... ..	...	...	...	...	...	...	...	...	1	...	1	...	...	2

§ PULMONARY TUBERCULOSIS : Patients suffering from this disease are now divided into two classes, viz. : *Class T.B. minus*, which comprises those patients in whose sputum tubercle bacilli have never been found : *Class T.B. plus* comprises those cases in which tubercle bacilli have at any time been found.

Class T.B. plus is further sub-divided into three groups. *Group 1* comprises early cases who will probably have their disease arrested by a period of Sanatorium treatment. *Group 3* includes advanced cases and cases with grave complications, e.g., diabetes and tuberculosis of larynx or intestine. *Group 2* all cases of *Class T.B. plus* who cannot be placed in groups 1 and 3.

VI.—VENEREAL DISEASES.

Treatment is carried out by the Staff of the Medical Officer's Department, female cases being dealt with by the female assistant medical officer. Bacteriological examinations are carried out at the Liverpool University.

During the year, 193 male and 99 female patients made a total of 2,624 attendances at the Treatment Centre and 5 patients received in-patient treatment for 178 days at the Isolation Hospital. Table 25 gives further details regarding these cases.

Compared with the previous year there is an increase in the number of new cases of venereal diseases presenting themselves for treatment. This is mainly due to an increase in cases of Gonorrhoea—chiefly amongst males—the number of cases in 1927 being the highest since 1920.

VII.—SUMMARY (for reference) of Nursing Arrangements, Hospitals, and other Institutions available for the district.

HOME NURSING.—The St. Helens and District Nursing Association, supported by voluntary contributions, maintain a superintendent, assistant superintendent and thirteen nurses to attend non-infectious cases in their own homes. 1,877 cases were nursed during the year, the total number of visits amounting to 56,411.

Arrangements are also in operation for the Association to undertake the home nursing of cases of Ophthalmia Neonatorum and Puerperal Pyrexia, and cases of Measles and Whooping Cough in children under 5 years of age. Under these arrangements the Association has made, during the year, 1,496 visits to 59 cases of Measles, 1 case of Whooping Cough, 21 cases of Ophthalmia Neonatorum and 2 cases of Puerperal Pyrexia.

Table 25.

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than Venereal		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. No. of cases which : (a) were under treatment or observation at the beginning of the year for ...	38	31	—	—	36	6	—	—	74	37
(b) returned to the treatment centre during the year after being marked off in a previous year as having ceased to attend or transferred to other centres ...	2	7	4	—	2	—	—	—	4	7
2. No. of cases dealt with at the Treatment Centre during the year for the first time ...	30	32	—	—	40	14	41	9	115	55
Total (Items 1 and 2)	70	70	4	—	78	20	41	9	193	99
3. No. of cases which ceased to attend (a) before completing the first course of treatment for :	4	7	3	—	42	3	—	—	49	10
(b) after one or more courses, but before completion of treatment for	21	7	—	—	—	—	—	—	21	7
(c) after completion of treatment, but before final tests as to cure of	—	—	—	—	—	—	—	—	—	—
4. No. of cases transferred to other Treatment centres after treatment for ...	—	2	—	—	1	1	—	—	1	3
5. No. of cases discharged after completion of treatment and observation for ...	8	14	1	—	4	2	—	—	13	16
6. No. of cases which, at the end of the year, were under treatment or observation for	37	40	—	—	31	14	2	—	70	54
7. Out-patient attendances (a) for individual attention by the Medical Officer	556	465	9	—	330	206	120	41	1015	712
(b) for intermediate treatment, e.g. irrigation, dressings, etc. ...	—	32	21	—	762	82	—	—	783	114
Total Attendances	556	497	30	—	1092	288	120	41	1798	826
8. Aggregate No. of "In-patient days" of treatment given to persons who were suffering from ...	30	83	—	—	25	40	—	—	55	123

MIDWIVES.—No district midwives are employed or subsidised by the public health authority. In exceptional cases however, where the patient has been unable to do so by reason of poverty, the Council have paid the midwife's fee.

CLINICS AND TREATMENT CENTRES.—The following clinics and treatment centres are provided by the Corporation :

(1).—**Maternity and Child Welfare Centres**—combined clinics for expectant and nursing mothers and for children under 5 years of age.

- (a) Town Hall Clinic ... Open Monday, Wednesday and Thursday, 2 to 4 p.m. For Hardshaw, Thatto Heath, Derbyshire Hill and Parr Districts.
- (b) Albion Street Clinic ... Open Monday, Tuesday and Thursday, 2 to 4 p.m. For North & South Ecclestone, North and South Windle, and Central Districts.
- (c) Elizabeth Street Clinic Open Wednesday, 2 to 4 p.m. For Peasley Cross and Sutton Districts.
- (d) Marshalls Cross Clinic Open Tuesday, 2 to 4 p.m. For Marshalls Cross, Sutton Manor and Clock Face Districts.

(2).—**Ante-natal Clinics**—For ante-natal cases only.

- (a) Town Hall Centre Friday, 2 to 4 p.m.
- (b) Elizabeth Street Maternity and Child Welfare Centre Thursday, 10 to 11 a.m.

- (3).—**School Clinic, Claughton Street.**—For treatment of minor ailments, throat and nose defects, eyes, dental defects and the X-ray treatment of ringworm. Minor ailments are treated daily from 9 a.m. to 5 p.m., and other defects on special days. A scale of income has been drawn up for recovery of cost of treatment in non-necessitous cases.

District Clinics for the treatment of minor ailments are also open for a few hours daily at Derbyshire Hill, Sutton and Sutton Manor and, after school dental inspection, Dental Clinics are held in the same districts and at Thatto Heath for varying periods.

- (4).—**Tuberculosis Dispensary, Claughton Street.**—Open Monday from 10 to 11-30 a.m., Wednesday from 5-30 to 7-0 p.m., Thursday from 2-30 to 4 p.m., and Friday from 10 to 11-30 a.m. and from 6 to 7 p.m.

A session is also held at the Elizabeth Street Clinic from 2-30 to 4 p.m. on Friday.

- (5).—**Venereal Diseases Centre, Claughton Street.**—Open for males on Monday, 6 to 7 p.m., and for females, Wednesday, 5-30 to 7 p.m. The centre is also open daily from 9 a.m. to 5 p.m., for irrigation, advice and prophylactic treatment.

- (6).—**Orthopaedic Clinic.**—At the Maternity and Child Welfare Centre, Albion Street. Orthopaedic Surgeon attends on 1st, 3rd, and 5th Wednesday of each month from 2 p.m. to 4 p.m.

HOSPITALS.—

Provided by the Council :—

- (1).—Borough Isolation Hospital, Peasley Cross. For Infectious Diseases (other than Small-pox). Beds, 136.
- (2).—Eccleston Hall Sanatorium for cases of Tuberculosis. Beds: 70.

(3)—Old Whint Hospital, Haydock. For debilitated and ailing infants. Beds : 20.

Subsidised by the Council.—Sankey Small-pox Hospital, for cases of Small-pox. St. Helens pays an annual retaining fee to the Warrington Corporation and the costs of treatment of any patient admitted from St. Helens.

Other Hospitals.—*The St. Helens Hospital.*—Supported partly by subscribers and partly by contributions. For all medical and surgical non-infectious cases. A new block containing 15 beds has recently been added for maternity cases. Total accommodation about 130 beds. Out-patient department for Ophthalmic, Ear, Throat and Nose, and Gynaecological cases.

The Providence Free Hospital.—Accommodation for about 100 patients (general medical and surgical cases).

VIII.—MATERNITY AND CHILD WELFARE.

NOTIFICATION OF BIRTHS.—Under the Notification of Births Acts, 2,378 live births and 108 still births were notified during the year. Of these 2,301 were notified by midwives and 198 by doctors and parents.

INFANT MORTALITY.—During 1927, 2,359 births were registered, and the deaths of 208 infants under one year of age occurred, giving an infant mortality rate of 88·1 per 1,000 births as compared with 102·3 for the previous year. Of the 208 deaths under one year, 197 were legitimate children and 11 illegitimate children, giving a legitimate infant mortality rate of 86·4 per 1,000 legitimate births and an illegitimate infant mortality of 137·5 per 1,000 illegitimate births.

In the following table (and more graphically in Table 11) the fall in the infant mortality rate during the past fifty years is shown :—

Period	Infant mortality per 1,000 births.	
	St. Helens.	England and Wales.
1876-80	153	145
1881-85	158	139
1886-90	166	145
1891-96	173	151
1896-1900	175	156
1901-05	157	138
1906-10	141	117
1911-15	140	110
1916-20	117	90
1921-25	102	75
1926	102	70
1927	88	69

The principal causes of the deaths in 1927 were as follows:

Congenital debility, malformations and premature birth.....	103
Pneumonia	25
Bronchitis and other respiratory diseases	12
Diarrhoea, etc.	17
Cerebral Haemorrhage	1
Tuberculosis	1
Measles	10
Due to Violence.....	1
Influenza	3
Other Causes.....	35

The following statement reviews the infant death rates per 1,000 births under the principal causes in the years 1922 to 1927.

	Infant Mortality per 1,000 Births.					
	1922	1923	1924	1925	1926	1927
Congenital Debility, malformations and premature births	44.43	39.77	44.90	38.02	38.26	43.66
Pneumonia, Bronchitis and other respiratory diseases	25.19	22.92	23.59	22.43	24.59	16.95
Measles and Whooping Cough	4.62	.76	3.43	5.33	1.95	4.23
Diarrhoea, etc	7.82	4.97	6.85	7.98	8.59	7.20
All other Diseases	23.46	22.94	24.73	26.24	28.89	16.10

The ages at which these deaths occurred during the past six years are shown in the following statement :—

	Deaths per 1,000 Births.				
	1923	1924	1925	1926	1927
Deaths under 1 day old	13.38	15.61	10.27	12.49	15.26
Deaths 1 to 7 days old	12.61	13.69	14.45	16.40	20.76
Deaths 1 to 4 weeks old	13.38	14.84	15.21	14.44	9.32
Total mortality under 1 month old, i.e., neo-natal deaths	39.38	44.14	39.93	43.34	45.35
Deaths 4 weeks to 3 months old	10.31	17.12	11.03	15.61	9.74
Deaths 3 to 6 months old	17.97	15.61	16.73	14.84	11.02
Deaths 6 to 12 months old.....	24.08	26.63	32.31	28.50	22.04

It will be seen that congenital debility, malformations and premature births still account for nearly one half of the infant mortality, and that more than one half of the deaths that occur are of infants under one month old. The saving of infant life during 1927 has been mainly at the ages from 1 week to 3 months old, with a smaller saving at the older ages. In infants under 7 days old, however, there has been a distinct increase in mortality—an increase which, in the case of infants aged 1 to 7 days has increased consistently from 12·6 deaths per 1,000 births in 1923 to 20·7 deaths in 1927.

The life of an infant under 1 month old is very largely dependent on the health of the parents and particularly on the health of the child-bearing mother. The younger the infant, the more is the effect apparent and it is mainly true that (apart from malformations and accidents at birth) all deaths of infants under 1 day old are directly due to parental causes. After the first twenty four hours the most important factor is the health of the mother, and the persistent rise in the infant mortality at ages 1 to 7 days suggests that the poverty which is known to exist has had an effect on infants at that age. This theory is supported by the large number of cases in which it has been found necessary to give dried milk for “supplemental feeds.” After 7 days old an increasing number of children receive dried milk or other artificial food, either supplemental to the mother’s milk or in place of it. The effect of the debilitated condition of the mother in

these cases is, therefore, not so marked and more of these infants survive. The remedy, however, is not to commence artificial feeding earlier, but to improve the health of the mother.

STILL BIRTHS.—The number of still births notified under the Notification of Births Acts during the year was 108. As compulsory registration of still births has only been in operation since July, 1927, the foregoing figure has been restricted to notifications only.

MATERNAL DEATHS.—During 1927, 8 deaths were registered as resulting from or in connection with childbirth, giving a maternal death rate of 3·39 per 1,000 live births. The causes of these deaths were :—

Influenza	1
Myocardial degeneration and heart failure.....	1
Bronchitis and Pleurisy	1
Puerperal sepsis	5
	<hr/>
Total.....	8
	<hr/>

There is a strong suspicion, however, that these figures do not represent the full total of all maternal deaths. The influence of pregnancy and parturition on mothers already affected with other diseases (e.g. tuberculosis, heart and kidney diseases, etc.) is not yet fully understood, nor can the effects of pregnancy or parturition be altogether ignored when such diseases follow child-bearing. In these cases there is a natural tendency for the medical practitioner to give, in the death certificate, only the immediate cause of death and thus many cases which should truly be classed as maternal deaths fail to be registered as such. If legal obligation was placed on the medical practitioner to indicate all cases where the deceased was 7 months or more pregnant or where death had occurred within one month of parturition, it would be possible to get a truer estimate of the maternal mortality, and from knowledge gained it might be possible to save many lives in future.

INFECTIOUS DISEASES IN MOTHERS AND CHILDREN.—

Puerperal Fever and Puerperal Pyrexia.—During 1927, 6 cases of puerperal fever and 23 cases of puerperal pyrexia were notified and 5 deaths occurred from puerperal sepsis.

The subsequent diagnoses in the 23 cases notified as puerperal pyrexia were as follows :—

Bronchitis and Pneumonia	3
Puerperal septicaemia	2
Puerperal sepsis localised in pelvis.....	13
Mastitis	2
Influenza and Tonsillitis	3
	<hr/>
	23
	<hr/>

For these cases beds are available at the Isolation Hospital and trained nurses are supplied on request for home nursing. During the year, 6 cases notified as Puerperal Fever and 7 cases notified as Puerperal Pyrexia were treated in the Isolation Hospital and in 2 cases nurses were supplied for home nursing. The Corporation's Consultant Gynaecologist is also available if a second opinion is required, and arrangements have been made with the City Laboratory, Liverpool, for any necessary bacteriological examinations.

Ophthalmia Neonatorum :—23 cases were notified during the year. Of these 16 were treated at home and 7 in Peasley Cross Isolation Hospital. As a result of enquiry at the end of the year it was found that 19 had unimpaired vision, and 4 had died. The deaths recorded were—

(a) at 2 weeks old of cleft palate, malnutrition and cardiac syncope.

(b) at 9 days old of bronchial pneumonia.

(c) at 18 days old of ophthalmia neonatorum, bronchitis and cardiac syncope.

(d) at one month old of ophthalmia neonatorum and congenital cardiac disease.

Measles and Whooping Cough.—237 cases of measles in children under 1 year old and 1805 cases in children aged 1 to 5 years were notified during the year. The deaths occurring in each age group were respectively 10 and 47.

60 cases of whooping cough were notified in children under 1 year old and 254 cases in children aged 1 to 5 years, the deaths due to this cause being respectively 0 and 5.

By arrangement with the St. Helens and District Nursing Association, home nursing of these cases is carried out by the district nurses, and beds are available at the Isolation Hospital for cases requiring hospital treatment or when home conditions are such that the case cannot be properly nursed at home.

It is to be regretted, however, particularly in regard to measles, that full advantage is not taken of these facilities. During 1927, 2892 cases of measles were notified, and, of these, 2042 were of children under 5 years of age. Of the 60 deaths that occurred, all but 3 were under 5 years of age. When one considers that the disease measles, by itself, is rarely fatal, that deaths in measles are usually due to complications, and that such complications can so frequently be avoided by good nursing, it seems a terrible waste of child life that so many deaths should occur. During 1927, measles and its complications caused four times the total number of deaths caused by all other infectious diseases (excluding tuberculosis and puerperal fever), yet of the 2892 cases that occurred during the year, only 78 were sent to hospital and only 59 applied for and accepted home nursing. For this apathy, parents and doctors alike are to blame.

Other Infectious Diseases.—Table 26 shows the number of cases of other infectious diseases which occurred in children under 5 years of age.

Table 26.
Infectious Diseases at ages 0—1 and 1—5 years.

	1927	
	Under 1 Year.	1—5 yrs.
Scarlet Fever	1	55
Diphtheria	2	42
Pneumonia	3	47
Erysipelas	1	1
Poliomyelitis	—	—
Cerebro Spinal Fever	—	—
Whooping Cough	60	254
Measles	237	1805
Polio-Encephalitis	—	—
Tuberculosis (Pulmonary)		4
„ (Non-Pulmonary)	3	14

INSPECTION AND SUPERVISION OF MIDWIVES.—

There were 49 midwives on the register as practising in the Borough during the year, three of whom were resident midwives at the St. Helens Hospital.

The qualifications of these midwives were as follows :—

Holding the certificate of the Central Midwives Board	36
Having other recognised certificates	9
Untrained	4

Inspections of midwives were carried out on 75 occasions by medical officers, and the health visitors paid 83 routine and 78 special visits for purposes of inspection and supervision. In 7 instances it was considered necessary to suspend a midwife from practice for 24 hours after contact with an infectious case to allow of the disinfection of herself and of her appliances.

During the year the private midwives found it necessary to call medical practitioners to their assistance on 588 occasions. The reasons for sending and the number of occasions in which medical assistance was required were as follows :—

Number of cases attended by midwives.....	2077
Number and percentage in which medical assistance was obtained	588 (28·3%)

Reasons for medical assistance :—

(a) For abortions and premature labours ...	51 (2·5%)
(b) For ante-natal illnesses... ..	60 (2·9%)
(c) For difficult confinement	242 (11·6%)
(d) For suturing the perinæum, expelling the placenta, excessive hæmorrhage, etc.	99 (4·8%)
(e) For post-natal illnesses... ..	55 (2·6%)
(f) For the child	81 (3·9%)

Under the Midwives' Act, 1918, the Local Supervising Authority is responsible for the payment of the fees of doctors called in by the midwives and have power to recover from the patient the whole or part of fees so paid. During the financial year 1927-28, £819 10s. 6d. was paid to medical practitioners for this service, and £314 10s. 10d. was recharged to the patients.

In accordance with the Rules of the Central Midwives Board ante-natal registers are now kept by all practising midwives. In these are recorded bookings, examinations, previous history of the patient, and any ante-natal treatment advised. These registers are inspected at intervals by the medical officers and health visitors and have been found on the whole to be well kept.

HEALTH VISITING.—The following statement shows the visits paid by health visitors during the year.

To expectant mothers :—

(a) First visits.....	949
(b) Subsequent visits	1,267

To infants under one year :—

(a) First visits.....	2,303
(b) Subsequent visits	14,201

To children, aged one to five years... 24,780

Total Visits	43,500
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MATERNITY AND CHILD WELFARE CLINICS.—

At the Maternity and Child Welfare Centres, combined clinics for expectant and nursing mothers and for children under 5 years of age are held. There are eight sessions weekly, and the sessions are so arranged that the mothers may come on those days on which the health visitor for their own district is in attendance.

In addition to the combined clinics, special ante-natal clinics are held twice weekly. To these clinics are referred cases where there is reason to suspect abnormality or where the history of previous pregnancies points to need of careful supervision. Though at first looked upon with some local prejudice, these clinics are becoming increasingly popular as mothers realise the benefits obtained by proper supervision throughout their pregnancy. During the year, 474 mothers made 1,353 attendances at these clinics.

The number of attendances at the various clinics is shown in Table 27.

Table 27.

Attendances at Maternity and Child Welfare and Ante-natal Clinics, 1923—1927.

	1923	1924	1925	1926	1927
Maternity & Child Welfare Centres.					
1. No. of Expectant Mothers attending :					
(a) First Visits	162	234	289	430	314
(b) Subsequent visits	341	412	484	766	503
2. No. of Mothers attending :					
(a) First Visits	1729	1979	2023	244	2443
(b) Subsequent Visits	5858	6648	6050	8705	7307
3. No of Children attending :					
(a) First Visits	2118	2519	2481	3094	2905
(b) Subsequent Visits	6675	7396	6710	9936	8359
4. No. of Attendances of :					
(a) Expectant Mothers	1123	1753	2061	2503	1681
(b) Mothers	15872	20698	19039	29283	26220
(c) Children	17655	22573	21194	31845	28374
Total No of attendances	34650	45024	42294	63631	56275
Ante-Natal Clinics.					
No. of Expectant Mothers attending	—	137	171	407	474
No. of Attendances	—	316	331	974	1353

HOSPITAL ACCOMMODATION.—During the year, arrangements were continued whereby the Corporation rent five beds for maternity cases in the new maternity block of the St. Helens Hospital with the option of renting three more as required and as available.

It has been found, however, that this accommodation is insufficient to meet the needs of the Corporation and though additional cases have frequently been admitted to the St. Helens Hospital it has been necessary on occasion to open the old maternity ward at Old Whint Hospital.

During 1927, the Corporation provided treatment for 142 cases at the St. Helens Hospital and for 5 cases at the Old Whint Hospital.

The Old Whint Hospital has still been retained for ailing and debilitated children and during the year 62 infants were treated Of these, 38 were discharged in good health, 4 were discharged improved and 3 cases returned home before any improvement could be effected. Three children died in hospital.

Table 28 gives a summary of the children treated, whilst Table 29 shows the reasons for admission, and Table 30 shows the causes of the deaths that occurred.

Table 28.

General summary of cases in Hospital for Children at Old Whint.

IN HOSPITAL ON 1ST JAN., 1927	NUMBER OF ADMISSIONS DURING YEAR	AVERAGE DURATION OF STAY IN DAYS.	NUMBER OF CASES DISCHARGED.				NUMBER OF CASES OF INFECTIOUS DISEASE.			
			No Improvement.	Improved.	In Good Health.	Discharged on account of Illness.	Measles.	Whooping Cough.	Epidemic Diarrhoea.	Chicken Pox.
15	47									
	62	70	3	3	24	—	—	—	—	—

Table 29.

Table showing reason of admission of children to Old Whint hospital, with number of cases under each heading.

Reason of Admission	Number
Acute Nephritis	1
Bronchitis	1
Cervical Glands	1
Convulsions	1
Debility	4
Infantile Paralysis	1
Marasmus.....	18
Otorrhoea	1
Observation	3
Pyelitis	1
Rickets	13
Talipes	1
Vomiting	1
	47

Table 30.

Table showing deaths of children at Old Whint Hospital, with dates and causes, period of residence, and ages.

Date	Cause of Death	Days in Hospital	Age
1927 Mar. 19	Convulsions due to Toxaemia from septic naevus	4	5 months
Oct. 26	Marasmus	220	3 months
Nov. 17	Marasmus and septic absorption from skin	41	4 months

MILK FOR MOTHERS AND INFANTS.—At each maternity and child welfare centre full cream dried milk is on sale at cost price. When, however, the financial circumstances of the home warrant it, the milk powder is supplied free or at less than cost price. There are no arrangements for the provision of meals for mothers.

During the year approximately 355 cwt. of dried milk were disposed of, and, of this, 516 lbs. were issued free and 34,085 lbs. at less than cost price.

Cod Liver Oil Emulsion, Malt and Oil, and Virol are also provided at the centres at cost price or free in suitable cases.

MATERNITY BAGS.—Maternity bags are issued on loan to cases in which the mothers have been unable to make the necessary provision. Bags have been lent out in 31 cases during the year.

MINOR AILMENTS AND DENTAL DEFECTS.—During the year, 30 children received treatment for minor ailments, and 144 mothers and 64 children received dental treatment at the school clinic.

CRIPPLED CHILDREN.—A complete record of the work of the Orthopaedic Clinic is given in Table 22 in the Tuberculosis section of the Report.

From that Table it will be seen that under the Maternity and Child Welfare service 127 crippled children under 5 years of age were dealt with. This involved 362 attendances to see the orthopaedic surgeon, and 1,414 attendances for intermediate treatment. Twenty three cases were admitted to hospital for opera-

tion or other surgical treatment. The cases dealt with comprised the following defects :—

Infantile paralysis	13
Other forms of paralysis.....	16
Rickets	62
Congenital deformities	26
Traumatism	1
Miscellaneous	9

IX.—WELFARE OF THE BLIND.

Since 1921 provision for the care and welfare of the blind in St. Helens has been made on behalf of the Corporation by the St. Helens and District Society for the Welfare of the Blind. Such provision has included the establishment of a work centre at Crook Street, the visiting of blind in their own homes for the purpose of teaching Braille and Moon type and simple handicrafts, the making of small monetary grants to necessitous blind, and the general provision of some measure of social activity amongst the blind.

In 1927, however, the whole position was reviewed and as a result a "Scheme of Re-organisation" was drawn up by the Society and approved by the Corporation and by the Ministry of Health. Under that scheme, the Society undertake to carry out all duties (other than education and training and the provision for children under 2 years of age) imposed upon the Corporation by the Blind Persons Act, 1920. The complete scheme is printed as an appendix to this report, but it might be mentioned here that one of its most important provisions is the greatly improved provision made for the unemployable aged and necessitous blind who

form so large a percentage of the blind population. Under the new arrangements, the income of these persons will be made up by the Society to a minimum amount and so obviate the necessity for them to apply for Poor Law relief. The Scheme also provides for the establishment and maintenance of a well equipped workshop for the employment of trained blind persons.

In addition to provision through the Voluntary Society for the registered blind, the Corporation themselves undertake (under Section 66 of the Public Health Act, 1925) the provision of treatment for persons suffering from disease of or injury to the eyes. This includes provision of spectacles or other suitable treatment in cases where, by such treatment, there is reason to suppose that blindness can be prevented.

**X.—LIST OF ADOPTIVE AND LOCAL ACTS, BYELAWS,
AND LOCAL REGULATIONS AND ORDERS
relating to the public health, in force in the district.**

ADOPTIVE ACTS.

The Infectious Disease (Notification) Act, 1889, applied to :

- (1) Ophthalmia Neonatorum, by Order of the Local Government Board, which came into force on the 7th April, 1910.
- (2) Acute Poliomyelitis and Cerebro Spinal Fever, by Order of the Local Government Board, which came into force on the 19th February, 1912.

The Infectious Disease (Prevention) Act, 1890. Adopted 7th January, 1891.

The Public Health Acts Amendment Act, 1890. Parts II and III adopted 1st April, 1891. Part IV adopted 1st July 1923. Part V adopted 24th October, 1894.

Public Health Acts Amendment Act, 1907, Sections 78, 79, 80, 81, 85, 88, 89 and 90, put in force 1st January, 1909. Sections 19, 25, 26, 27, 29, 32, 33, 34, 35, 36, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 66, 67, 68, 93, and 95, and Part V, put in force 23rd August, 1909.

The Public Health Act, 1925, Part II, (Sections 13, 14, 15, 16, 20, 23, 25, 26, 27, 28, 30, 31, 32, and 35); Parts III IV and V adopted 7th December, 1927, put in force on 1st February, 1928.

LOCAL ACTS with Sanitary Clauses.

The St. Helens Improvement Act, 1869.

The St. Helens Corporation Act, 1893.

The St. Helens Corporation Act, 1898.

The St. Helens Corporation Act, 1911.

The St. Helens Corporation Act, 1921.

The Ministry of Health Provisional Orders Confirmation (No. 2) Act, 1926 ; confirming the St. Helens Order, 1926, as to Tuberculosis.

BYELAWS.

Byelaws as to Nuisances, confirmed by the Home Office, 11th May, 1870.

Byelaws as to Slaughterhouses, made by the Council on the 2nd March, 1870.

Byelaws with respect to New Streets and Buildings in the Borough of St. Helens, made by the Council on the 5th October, 1927.

Byelaws with respect to the Drainage of Existing Buildings in the Borough of St. Helens made by the Council on 7th December, 1927.

Byelaws with respect to Tents, Vans, Sheds and similar structures used for human habitation made by the Council on the 28th July, 1926.

Byelaws with respect to Common Lodging Houses, made by the Council on the 2nd May, 1894.

Byelaws with respect to Houses let in Lodgings, made by the Council on the 2nd May, 1894.

Byelaws with respect to Female Domestic Servants' Registries, made by the Council on the 1st December, 1909.

Byelaws with respect to the Supply of Water, made by the Council on the 6th June, 1900.

Byelaws with respect to Cisterns, Waterclosets and Urinals, made by the Council on the 1st February, 1922.

Byelaws as to Spitting, made on the 2nd August, 1911.

REGULATIONS.

Regulations as to Public Abattoir and Cold Air Stores, made by the Council on the 2nd May, 1906.

ORDERS—SHOP ACTS.

General Weekly Half-Holiday Order, made on the 7th August, 1912.

Weekly Half-Holiday Extension Order (Butchers and Chemists) made on the 4th December, 1912.

Closing Order (Motor, Cycle and Aircraft dealers) confirmed by the Home Secretary on the 30th January, 1913.

Closing Order (Tailors, etc. Shops) confirmed by the Home Secretary on the 10th December, 1915.

XI.—INSPECTION AND SUPERVISION OF FOOD.

MILK SUPPLY.—At the close of the year there were registered under the Milk and Dairies (Amendment) Act, 1922, and the Milk and Dairies Order, 1926 :—

7 persons as cowkeepers and wholesale and retail purveyors of milk ;

1 person as a cowkeeper and wholesale purveyor of milk ;

12 persons as cowkeepers and retail purveyors of milk ;

68 persons as purveyors of milk ; and

88 premises as cowsheds or dairies.

A total of 368 inspections were paid to the cowsheds, dairies and milkshops during the year. Approximately 230 cows are kept for dairy purposes within the borough, and these were regularly inspected by the Veterinary Inspector.

A revision of the whole of the milk and dairies register was commenced during the year, and a survey of all the registered premises was made with a view to improving the conditions under which milk is produced and distributed in the borough. At many of the farms extensive structural alterations are required, chiefly as regards the provision of impervious floors and channels and satisfactory means of lighting and ventilation to cowsheds, and the provision of suitable dairies and of facilities for the cleansing and sterilisation of milk utensils and appliances. The co-operation of the owners of farms has been obtained in many instances, with the result that much of the work of improving the dairy farms is already in progress.

As regards the sale of milk by retail, many general shopkeepers have in the past been registered and, in some instances, the facilities for the storage of such an important article of food as milk have been far from satisfactory. In cases where dust is likely to be disseminated from other articles which are sold on the premises, steps are being taken to require a dust proof cabinet to be provided for the milk receptacle. New applications for registration of such premises in the future should not be entertained and it is hoped that such milkshops will gradually disappear.

No application was received during the year for a licence under the Milk (Special Designations) Order, 1923.

MEAT AND OTHER FOOD.—There is a municipal abattoir with cold stores attached. Slaughtermen are licensed by the Corporation, and all animals killed are inspected by a qualified meat inspector.

There are two private slaughterhouses in the borough licenced for the slaughter of pigs only.

The inspection of meat and other foods is regularly carried out by the sanitary staff, and for this purpose 584 visits were made to shops, stalls and vehicles, and places where food is prepared.

The following are the quantities of various classes of food-stuffs which were destroyed during the year by the department owing to being diseased or unsound :—

Meat	99,894 lbs.
Fish	5,387 „
Fruit	95 „
Poultry and Game	943 „
Rabbits and Hares.....	35 couples.

Table 31 shows the number of animals slaughtered and the approximate weight in pounds of meat found diseased.

Table 31.

Number of Animals slaughtered and amount of diseased meat condemned during the year 1927.

ABATTOIR.					PRIVATE SLAUGHTERHOUSES.			
1926	Number of Animals Slaugh- tered.	No. of Animals found diseased		Weight in lbs. of Meat Con- demned	Number of Animals Slaugh- tered.	No. of Animals found diseased		Weight of Meat in lbs. Con- demned
		Tuber- culosis	Other diseases.			Tuber- culosis	Other diseases.	
Beasts	4931	694	1445	88,377	—	—	—	—
Calves	582	—	9	1,431	—	—	—	—
Sheep	4340	—	143	1,050	—	—	—	—
Pigs	7146	145	169	—	2,235	52	30	—

SALE OF FOOD AND DRUGS ACTS.—During the year. 187 formal samples and 22 informal samples were taken for analysis.

The natures of the samples taken, with the result of examination by the Public Analyst, are shown in Table 32.

Table 32.

Number of samples taken under the Food and Drugs Acts during 1927, and results of analysis by the Public Analyst.

ARTICLE	No. of Samples Taken	No. found to be genuine	No. Adulterated.
Milk	155	148	7
Butter	5	5	—
Margarine	5	5	—
Tea	11	11	—
Flour	3	3	—
Sausages	5	5	—
Coffee	8	8	—
Lard	5	5	—
Vinegar	1	1	—
Cheese	2	2	—
Tinned Fruit	5	5	—
Cream	4	1	3
TOTAL	209	199	10

The appended statement shows the actions taken in the case of adulterated samples.

(a)—Legal proceedings instituted under the Sale of Food and Drugs Acts :—

Sample 306.	Milk	...	22% deficient in fat.—Fined 40/- and 31/- costs.
„ 310.	„	...	16% deficient in fat.—Fined £10 and 31/- costs.
„ 338.	„	...	2% added water.—Dismissed on payment of costs. No conviction recorded.
„ 353.	„	...	3% added water.—Dismissed on payment of costs. No conviction recorded.

- „ 386. „ ... 5% added water.—Dismissed on payment of costs. No conviction recorded.
- „ 387. „ ... 4% added water.—Dismissed on payment of costs. No conviction recorded.
- „ 433. „ ... 10% short of fat. Dismissed on payment of costs. No conviction recorded.

(b)—No legal proceedings instituted.

- Sample 368. Cream ... Contained 0·27% Boric Acid.—Informal sample.
- „ 369. „ ... Contained 0·19% Boric Acid.—Informal sample.
- „ 375. „ ... Contained 0·32% Boric Acid.—No action taken as, although cream was asked for, it was supplied in a properly labelled carton, distinctly marked “Preserved Cream.”

THE MILK AND CREAM REGULATIONS.—155 samples of milk were examined during the year, but in no instance was any preservative discovered. 4 samples of fresh cream were purchased for analysis and 3 were found to contain Boric Acid. Two of these samples were taken informally, and no action was taken with respect to the third as, although “cream” was asked for, it was supplied in a properly labelled carton distinctly marked “Preserved Cream.”

TUBERCULOSIS ORDER, 1925.—During the year, seven cattle were dealt with under the Tuberculosis Orders, 1925. Of these, one was notified by a private veterinary surgeon, one by

the owner, and five by the Corporation's veterinary inspector. Slaughter was carried out in each case by the Council, and evidence of tuberculosis was found on the post mortem examination. The total compensation paid to owners was £53 10s. and the net salvage was £28 9s. 2d.

The following statement shows the descriptions of the animals dealt with, the form of the suspected disease and the classification of the stage of the disease as revealed at the post mortem examination :—

Description	Form of the suspected disease	Classification at post mortem examination
Cow in milk	Tuberculosis of the udder	Not advanced
do.	Tuberculous emaciation	Advanced
do.	Tuberculosis of the udder	Not advanced
do.	Tuberculous emaciation	Advanced
do.	Ditto	Advanced
do.	Chronic Cough, etc.	Not advanced
do.	Ditto	Advanced

BAKEHOUSES.—There are 77 bakehouses on the Register, one of which is underground. Mechanical power is used in twenty instances.

264 visits of inspection were made during the year and one sanitary defect was found and remedied after notice being given.

XII.—SANITARY CIRCUMSTANCES OF THE AREA.

RIVERS AND STREAMS.—Considerable pollution of rivers and streams is taking place in the area, giving rise to effluvia nuisances in places and in some instances to conditions which are dangerous to health. The more serious pollutions consist of sewage and percolations from manufacturing waste heaps.

The following are the points where the more serious sewage pollutions are taking place :—

- (a) Gerards Bridge, where the sewage from approximately 1,000 houses in the Hardshaw and Gerards Bridge areas is discharged without treatment into the canal basin.
- (b) Forest Road, Sutton Manor, where the sewage from approximately 500 houses is discharged into the brook without treatment.
- (c) Merton Bank Road, where sewage from houses in Merton Bank and Islands Brow is discharged into the Rainford Brook and the Canal respectively.
- (d) The Rainford Brook is also polluted a few yards from the borough boundary by the discharge into it of sewage from the Moss Bank area.

The pollution of these watercourses by such large volumes of sewage has converted them into open sewers, and their proximity to populous areas—particularly in the case of the Canal Basin and Sutton Manor—is a menace to public health. Immediate steps should be taken to deal satisfactorily with these pollutions.

The effluvium nuisance experienced at intervals in the Ashcroft Street district has been fully investigated and it is found that the nuisance is caused by sulphuretted hydrogen given off from the Sutton, Hardshaw and Sankey Brooks. These brooks are polluted by percolations from the alkali waste heaps which abut upon them, and the amount of sulphides and free sulphuretted hydrogen is such as to give rise to some degree of nuisance at all times. Should, however, any liquid of an acid nature be discharged into one of

these brooks, the nuisance would become more marked owing to the greater volume of sulphuretted hydrogen which would then be liberated. Such liquid would naturally come from chemical works abutting on the brook, but, as these works are not now working, the possibility is very small. That possibility is, however, the subject of enquiry from time to time and frequent tests for acid are made at various points along the brook course.

CLOSET ACCOMMODATION.—During the year, 69 privy middens and 264 tub and pail closets were converted to the water carriage system. These were all carried out during the latter half of the year. It is estimated that there are still 1,139 privy middens and 644 tub and pail closets to be dealt with.

Table 33 shows the number of conversions completed each year since 1904.

Table 33.

The number of conversions to the water carriage system completed each year since 1904.

Year	Privies	Tub and pail closets	Total
1904	69	67	136
1905	80	64	144
1906	47	19	66
1907	237	125	362
1908	243	24	267
1909	106	38	144
1910	179	33	212
1911	270	129	399
1912	301	691	992
1913	460	646	1,106
1914	691	976	1,667
1915	300	380	680
1916	57	112	169
1917	45	103	148
1918	18	21	39
1919	148	142	290
1920	284	369	653
1921	75	198	273
1922	45	350	395
1923	132	367	499
1924	160	685	845
1925	82	278	360
1926	39	238	277
1927	69	264	333

The conversions scheme is now reaching its final stage but progress is necessarily slow owing to the difficulties encountered in drainage and sewerage. In many instances it is impossible for the work to proceed owing to the absence or insufficiency of sewers. During the year, much time has been spent in examining and testing old systems of drainage, and during the latter half of the year it was found impossible to proceed with conversions in 182 instances owing to the insufficiency of sewers. Many of these properties are situated near the centre of the borough and it is, therefore, necessary that the sewerage arrangements should be made satisfactory at the earliest possible moment.

SCAVENGING.—The removal and disposal of house refuse is carried out by the Borough Engineer's Department. There are no refuse disposal works for dealing with refuse, and the majority is tipped at Parr Depot.

SANITARY INSPECTION OF THE AREA.—The total number of visits paid by Sanitary Inspectors during the year was 10,570. The nature of these inspections is shown in Table 34, and Table 35 contains a list of the notices served and the results of such notices.

Table 34.

Number and nature of inspections during 1927.

Housing inspections during the regulations of 1925	.....	.....	19
Visits and re-visits under Public Health and Housing Acts	.....	.....	5,850
Visits to Dairies, Cowsheds and Milkshops	.....	.....	677
Visits to Slaughterhouses	.....	.....	101
Visits to Bakehouses	.....	.....	264
Visits to Factories and Workshops	.....	.....	593
Visits to works in progress (conversions, drainage, etc.)	.....	.....	2,532
Visits to Glassworks (straw sterilisation)	.....	.....	151
Miscellaneous visits	.....	.....	383
Total			<hr/> 10,570 <hr/>

Table 35.

Sanitary Defects—Number of notices served during 1927,
and results.

Nature of Notice	Preliminary Notices	Statutory Notices	Number complied with	Number outstanding at end of year
To clear choked drains and w.cs.	175	181	208	—
„ repair and reconstruct drains	35	26	33	2
„ provide and repair slopstones	43	34	39	4
„ repair w.cs., baths, lavatories or cisterns	61	65	62	7
„ repair roofs of dwelling houses	267	194	250	20
„ cleanse filthy premises	12	8	12	—
„ provide sufficient closet and ash- pit accommodation	165	146	162	39
„ provide and repair eaves-gutters, and downspouts	206	171	205	28
„ repair paving of yards	13	26	28	1
„ repair floors of dwelling houses	60	50	54	10
„ remove animals, etc., from premises	14	6	12	2
„ abate overcrowding in dwelling houses.....	2	2	2	—
„ repair plaster of walls and ceilings	185	150	170	25
„ remedy defects in factories and workshops	6	2	7	—
„ remedy defects in dairies, cow- sheds and milkshops	4	—	3	1
„ remedy miscellaneous nuisances.....	351	280	306	46
„ convert to water carriage system	—	538	333	205
TOTALS	1,599	1,879	1,886	390

SMOKE ABATEMENT.—No action was taken during the year with respect to smoke abatement work. This was due to the inadequacy of the staff of Inspectors, for it is impossible with the present staff to devote the time necessary for carrying out efficiently this work.

The necessity for work of this nature in an industrial town like St. Helens cannot be too strongly emphasised. Apart from the danger to health that may arise from continuous breathing of a smoke laden (and sometimes polluted) atmosphere, a heavy smoke pall has a marked effect in cutting off those rays of the sun which have been proved to be most beneficial to health. It does not

follow that if smoke abatement work was carried out there would be a detrimental effect on industry in consequence. On the contrary, such work is found most helpful, as excessive emission of black smoke generally denotes inefficiency in firing and wastage of fuel.

To take observations of smoke emission (each of which must extend over a period of at least half an hour), and to follow up where necessary to advise those responsible, takes considerable time which the present staff cannot afford to give. Extra assistance is also required for the carrying out of the detailed inspections required under the Housing (Consolidated) Regulations, 1925. I would suggest, therefore, that the time has now come for the appointment of an additional sanitary inspector so that more attention can be given to these duties.

FACTORIES AND WORKSHOPS.—(a) Factories—No defects remediable under the Public Health Acts were reported by H.M. Inspector of Factories.

(b) Workshops—The number of workshops registered is 131 and Table 36 shows the classes of such workshops.

Table 36.
Registered workshops.

Workshops on the Register (s. 131) at the end of the year.	Number
Dressmakers and mantle making	10
Milliners	11
Tailors.....	12
Hosiery Knitters	1
Joiners, builders, cabinet-makers and plumbers, etc.	19
Blacksmiths, wheelwrights, coach builders and masons	7
Weighing machine repairers.....	1
Cloggers and boot repairers	36
Cycle Makers	2
Tripe Dressers	1
Herbal Brewer	2
Seltzogene charge maker	1
Cab washing	2
Saddler	1
Sundries	20
Ice Cream Makers	5
Total number of Workshops on Register	131

(c) Outworkers—No lists of out workers were received from employers during the year.

Table 37 gives particulars of the administrative action taken under the Factories and Workshops Act, 1901.

Table 37.

Factories, Workshops and Workplaces.

1.—Inspection of Factories, Workshops and Workplaces. Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises	Number of		
	Inspections	Written Notices	Occupiers Prosecuted
Factories (including Factory Laundries)	116	2	—
Workshops (including Workshop Laundries)	407	5	—
Workplaces (other than Outworkers' premises)	70	—	—
Total	593	7	—

2.—Defects found in Factories, Workshops and Workplaces.

Particulars	Number of Defects			No. of offences in respect to which prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	
Nuisances under the Public Health Acts :—				
Want of cleanliness	5	5	—	—
Other nuisances	2	2	—	—
Offences under the Factory and Workshops Acts :—	—	—	—	—
Total	7	7	—	—

Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshops Act, 1901, as remediable under the Public Health Acts.

3.—Outwork in Unwholesome Premises, Section 108.

Nil.

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYELAWS OR REGULATIONS.—

Offensive Trades.—There are five offensive trades carried on in the borough, four of which are tripe dressers and one a gut scraper. These premises are inspected regularly and kept under observation, 108 visits being paid during the year.

Tents, Vans, Sheds, etc.—The number of vans used for human habitation is increasing in spite of the operation of the Byelaws. Many of the vans are badly constructed and many defects were found for which notices were served on the owners. Four batches, comprising 22 vans, have been dealt with during the year under the Byelaws.

The responsibility for providing sanitary conveniences, water supply, etc. rests in most instances upon the ground landlords, and in the majority of cases vans are allowed to stand at nominal ground rents. The result is that when notices under the Byelaws are served upon the landlords, the occupiers of the vans are required to quit the land, and they usually move to a fresh site. This means that the process of inspection and service of notices has to be recommenced. Such procedure certainly has the advantage of keeping the vans on the move from one site to another, but it does not solve the problem of the danger arising from the lack of suitable sanitary conveniences and watersupply. I would strongly recommend that power be sought requiring the approval of the Local Authority to be first obtained before any person shall set a van on any land within the borough.

Houses-Let-in-Lodgings.—There are only 12 premises registered as houses let-in-lodgings, but there are others which are known to be used for the purpose but cannot be brought within the scope of the existing byelaws owing to their rateable values and rents being above the prescribed limits. It is hoped, however, that in the near future a new set of byelaws will be put into operation.

During the year, seven notices were served and complied with in respect of houses let-in-lodgings.

Common Lodging Houses.—There are six common lodging houses registered for the accommodation of 264 lodgers. These premises were regularly inspected, 119 visits being paid ; and seven notices were served, of which six were complied with.

OTHER SANITARY CONDITIONS.—Rats and Mice Destruction Act, 1919.—The duties of Rat Officer under the Rats and Mice Destruction Act, 1919, were carried out by the Veterinary Inspector until December, 1927, after which they were transferred to the Chief Sanitary Inspector. A Corporation rat catcher is not employed, but advice as to rat destruction and prescriptions for bait have been issued in a large number of cases. Informal action under the Act has been taken in many instances, resulting in the destruction of a large number of rodents by occupiers, whilst the co-operation of the owners of buildings has been obtained in making structures (foundations, floors, drains, etc.) rat-proof. It is only by such co-operation of owner and tenant that satisfactory results can be obtained.

Canal Boats.—No canal boat was inspected during the year, and it would appear that for the time being the canal has fallen into disuse.

Mortuary.—A public mortuary with post mortem room is maintained behind the Town Hall and is under the supervision of the Medical Officer of Health. During the year 28 bodies were received into the mortuary and 7 post mortem examinations were conducted.

XIII.—HOUSING.

Of the 648 houses erected during 1927, 628 were subsidy houses, and, of these, 368 were erected by the Local Authority and 260 by private or commercial enterprise. During the year building operations were commenced by the Corporation for a further 664 houses on the following sites :—

Gower Street, Allanson Street and Broad Oak Road.....	50
Scholes Lane and Bulls Head.....	104
Pocket Nook	18
Windlehurst	2
Gerards Lane	60
Haresfinch	80
New Street	8
Derbyshire Hill	232
Clock Face	48
Borough Road	40
Robins Lane	22
<hr/>	
Total	664
<hr/>	

Table 38 shows the number of dwelling houses erected in each ward since 1904.

Table 38.

The wards of the borough in which dwelling houses have been erected during the years mentioned.

Year	North Eccles- ton	South Eccles- ton	Central	North Windle	South Windle	Hard- shaw	East Sutton	West Sutton	Parr	Total
1904	105	53	7	37	18	47	59	1	70	397
1905	19	93	1	44	16	90	42	10	54	369
1906	11	51	—	31	13	31	73	24	39	273
1907	22	38	—	26	—	22	77	3	29	217
1908	2	52	—	4	2	27	22	—	20	129
1909	—	36	—	10	—	10	6	3	10	75
1910	2	31	—	10	—	24	18	—	25	110
1911	14	20	—	—	—	30	75	26	12	177
1912	35	28	—	4	—	26	28	58	1	180
1913	10	31	—	—	3	19	14	99	6	182
1914	10	42	—	9	16	14	20	63	29	203
1915	6	9	—	26	1	2	8	25	27	104
1916	—	12	—	1	1	2	4	16	16	52
1917	—	—	—	—	—	—	—	9	—	9
1918	—	—	—	—	—	—	—	3	—	3
1919	—	1	3	—	—	—	—	—	—	4
1920	—	—	—	—	—	—	—	—	—	—
1921	—	1	—	41	—	—	—	6	—	48
1922	—	1	—	164	—	—	—	—	—	165
1923	1	5	2	2	—	2	—	33	—	45
1924	2	24	—	25	—	—	2	45	5	103
1925	8	76	—	90	—	1	9	48	15	247
1926	19	172	—	106	16	4	19	63	51	450
1927	33	189	—	125	3	68	160	14	56	648

A statement as to the number of houses erected with and without State assistance, together with a summary of the work of the department in regard to housing is given in Table 39.

Table 39.

Housing.

Number of new houses erected during the year :—

- (a) Total (including numbers given separately under (b) 648
- (b) With State assistance under the Housing Acts :
 - (i) By the Local Authority..... 368
 - (ii) By private or commercial enterprise..... 260

Inspection of Dwelling Houses during the year :—

- | | |
|---|-------|
| (1) Total number of dwelling houses inspected for housing defects under Public Health Acts or Housing Acts | 1,612 |
| (2) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing (Consolidated) Regulations, 1925 | 19 |
| (3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation | 19 |
| (4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation | 1,590 |

Remedy of Defects during the year without service of formal notices :—

- | | |
|---|-----|
| Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers | 635 |
|---|-----|

Action under Statutory Powers during the year :—

- | | |
|--|------|
| (A) Proceedings under Section 3 of the Housing Act, 1925 | Nil. |
| (B) Proceedings under Public Health Acts :— | |
| (1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied | 955 |
| (2) Number of dwelling houses in which defects were remedied after service of formal notices : | |
| (a) By owners | 874 |
| (b) By Local Authority in default of owners | 1 |

(C) Proceedings under sections 11, 14 and 15 of the Housing Act, 1925 Nil.

(D) Proceedings under Byelaw 93 of the Building Byelaws, 1893 :—

- (1) Number of representations made with a view to the making of Closing Orders..... 4
- (2) Number of dwelling houses in respect of which Closing Orders were made..... 4
- (3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit..... Nil.
- (4) Number of dwelling houses in respect of which Demolition Orders were made..... Nil.
- (5) Number of dwelling houses demolished in pursuance of Demolition Orders Nil.

(Two of the houses referred to in (D) (2) above were demolished by the Owner).

As will be seen in Table 39 only 19 houses were inspected and recorded under the Housing (Consolidated) Regulations, 1925. To carry out these inspections thoroughly requires a considerable amount of time which the present sanitary staff is unable to devote to the work. Up to the present, action under these regulations has been delayed owing to the housing shortage, but, with the increasing number of houses now available, I think immediate steps should be taken for dealing with insanitary property. For this purpose, I would suggest, therefore, as mentioned in the section dealing with smoke abatement, etc., that the sanitary staff be increased.

A further difficulty met with in dealing with insanitary property is that of finding accommodation for the tenants from the houses which should be closed. These tenants are usually of the poorer working class who cannot afford the rents of the present

Corporation houses, and many of them could be housed in houses with less accommodation than those at present built by the Corporation. I would, therefore, strongly urge that the Corporation include in their housing programme the provision of smaller and cheaper houses.

XIV.—HEALTH WEEK.

Health Week was held from the 14th to the 18th November. The various activities during the week were in the hands of Mr. T. Bowen Partington, of the New Health Society, and consisted of special film lectures for women, short talks and educational films for children, dinner-hour meetings at various works in the town and evening meetings at various social and other clubs. The week finished with a popular lecture in the Town Hall, by Sir Arbuthnot Lane, who took as his text, "The Secrets of Good Health." All the meetings were exceptionally well attended and the keen interest displayed on the various points discussed shewed that there is an awakening desire on the part of the public for knowledge in health matters.

APPENDIX.

PROVISION FOR THE WELFARE OF THE BLIND. "SCHEME OF RE-ORGANISATION," 1927.

(Approved by the St. Helens County Borough Council and the Ministry of Health).

Arrangements between the St. Helens County Borough Council and the St. Helens and District Society for the Welfare of the Blind for the carrying out of certain duties under the Blind Persons Act, 1920.

In consideration of payment by the St. Helens County Borough Council to the St. Helens and District Society for the Blind such sums annually as are hereinafter mentioned under the heading "Basis of Payment," the Society will undertake in the manner outlined in the Schedule below to carry out all duties imposed upon the Corporation by the Blind Persons Act, 1920.

SCHEDULE.

1. *Registration.* The Society will keep a true record of all Blind Persons resident within the County Borough of St. Helens who have been duly certified as "Blind under the Act" by the Medical Officer of Health.

2. *Infants under 2 years of age.* To be referred by the Society to the Medical Officer of Health for attention under the Preventive Schemes of the Corporation Health Committee.

3. *Elementary Education.* (Children from 2 to 5 years).
(Children from 5 to 16 years).

To be referred by the Society to the Education Officer for attention under the Education Acts.

4. *Technical and Industrial Training.*

(Young Persons 16 to 21 years of age).

(Trainable Adults of 21 years and over).

To be referred by the Society to the Education Officer for attention under the Education Acts, but provided that the Society shall have power to recommend as to the particular branch of Training to be taken, having regard to the accommodation in the Society's Workshops.

5. *Employment of Trained Blind Persons.* The Society will acquire, equip and properly maintain a suitable Workshop, provide adequate supervision, pay "Piece Work" or "Standard" rates of wages for work performed together with Augmentation calculated upon the "Sliding Scale" of the Ministry of Health.

6. *Home Teaching and Visiting Service.* The Society will maintain suitable Home Teacher-Visitors (at least one male and one female) approved by the Ministry of Health for the purpose of Teaching Braille and Moon Type and Simple Handicrafts to suitable Blind Persons in their own Homes, and for Welfare Work amongst the Blind generally.

7. *Home-Workers.* The Society will provide and maintain a scheme of Home-working for trained Blind Persons who for approved reasons are unable to be accommodated in the Workshops and pay such persons an agreed Flat Rate Augmentation Grant.

8. *Casual Blind Workers, Partially Trained Persons, Partially Sighted (Certified as "Blind") Persons.* The Society will endeavour to provide employment for or otherwise provide for in the Workshops or elsewhere persons under this class.

9. *Unemployable, Aged and Necessitous Blind.* The Society will provide for this class on the terms of the separate scheme shown as Appendix (1) attached hereto.

10. *Social Activity.* The Society will provide some measure of Social Activity amongst the Blind in an effort to brighten their lives.

11. *Hospital Treatment, Maintenance in Homes, etc.* The Society will, on the recommendation of the Medical Officer of Health, provide in conjunction with the Local Board of Guardians, such treatment or maintenance as may be advisable in special cases.

12. *Representation.* The St. Helens County Borough Council shall, during the continuance of this arrangement, be entitled to appoint 5 Members of the Council on the General Committee of the Society, one of whom shall be the Medical Officer of Health.

13. *Administration.* The Society shall be administered by a General Committee appointed at the Annual Meeting each year,

representative of the Local Council 5 Members, the Lancashire County Council 1 Member, the Local Board of Guardians 3 Members and 3 representatives of the Local Blind themselves, provided always that no Blind Person in receipt of Salary or Wages from the Society shall be eligible for a seat on the Committee, together with 8 Co-opted persons with power to add further Co-opted persons if necessary or advisable.

The Executive Officer, full-time and maintained by the Society, shall be the Secretary, who shall, under the direction of the General Committee, assume control of all the activities of the Society both Official and Voluntary (collection of Voluntary Funds, etc.).

14. *Basis of Payment.* The Council to pay to the Society a sum equal to the Grant for Workshop Employees, Home-workers and Home-Teachers received by the Society from the Ministry of Health in respect of Blind Persons on the Register of the Blind for St. Helens, plus a Capitation Grant of Five Pounds per head per annum for every Blind Person on such Register, provided that the total contribution for the year ending 31st March, 1928, shall not exceed £1,061.

15. Payment of the said sum to be made quarterly and this arrangement to be subject to revision if necessary after a period of twelve months from 1st April, 1927, or earlier if the Society's New Workshops be opened before 31st March, 1928.

APPENDIX No. 1.

In explanation of Section 9 (Unemployable, Aged and Necessitous Blind).

1. That the incomes of all Necessitous Blind Persons be made up to a minimum of 15/- per week.

2. That the term "Necessitous" shall mean Incapable or Incompetent Persons of advanced age or otherwise, who, in the opinion of a competent authority are unable to benefit by treat-

ment under any other Section of the Scheme, but to preclude any persons deemed so competent for benefit but unwilling to benefit by the opportunities offered.

3. That the cases of Blind Persons already being assisted by the Local Guardians shall from the 1st June, 1927, be referred to the Society for treatment as in Paragraph (1) above.

4.—That the distribution of all Assistance Grants be administered through the Secretary of the Society.

5. That all Assistance Grants shall be in respect of the Blind Person only and that any further assistance required in respect of Wife, Family or other Relative should be the direct business of the Local Guardians.

6. That the Local Guardians should continue to maintain in the Union Homes or elsewhere such destitute Blind Persons for whom no other form of treatment is possible.

7. That in Special Cases where necessary Gifts of Food, Clothes or Medical Requisites be given by the Society, but these to be a charge upon the purely Voluntary Funds of the Society.

8. The Local Board of Guardians make a Block Grant to the Society of a sum of Money annually, which will either wholly or partially cover the Society's Disbursements under Paragraph (1) above.

